with Thiophosgene - Conversion to Isothiocyanate Groups An aqueous solution of the product prepared in Example 2 is added to an equal volume. . .

The procedure is repeated, substituting the product of Example 3 for the product of Example 2, EXAMPLE 5

Activation of Amino Group of DOTA-N(2-Aminoethyl)Amide with Bromoacetyl Chloride - Conversion to Bromoacetamide Grou'ps

An aqueous solution of the product prepared in Example 2 (20mg/ml) which also contains triethylamine (20mg/ml) is. . .

# EXAMPLE 13

Preparation of - PAMAM - Poly DOTA
The G2.0 PAMAM dendrimer prepared in Example 10 (log, 0.01 mol) is combined with 12 equivalents of DOTA carboxycarbonic anhydride (0,13 mol) prepared as in Example 1, by slowly mixing a precooled (00 C) acetonitrile solution (20 ml) of dendrimer to the DOTA mixed anhydride slurry over 10 minutes and gradually allowing the reaction mixture to warm to ambient temperature. The reaction mixture is worked up. . .

# EXAMPLE 17

Preparation of DOTA-G3 Dendrimer magnifier An acetonitrile solution of tris-t-butyl-DO3A and ClCH2CONHCH2(C6H4)pNO2 (Example 16) are heated at 65DC for 24 hours, The chelant-linker product is isolated. . .

CLMEN. . . compound according to any one of claims 1 to 13 wherein said macrocyclic chelants are selected from the residues of 1,4,7,10- tetraazacyclododecanetetraacetic acid (DOTA),

1 7,10-tetraazacyclododecane 4 triacetic acid (DO3A), I-oxa 7,10-triazacyclododecane-triacetic acid (DOXA), 1 7-triazacyclononanetriacetic acid (NOTA), 11408fll-tetraazacyclotetradecanetetraacetic acid (TETA), DOTA-N(2-aminoethyl)amide and DOTA-N(4-aminophenethyl)amide.

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                 CAS REGISTRY(SM) updated with amino acid codes for pyrrolysine
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                 multiple databases
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                 CA/CAplus pre-1967 chemical substance index entries enhanced
                 with preparation role
                 CAS Registry Number crossover limit increased to 300,000 in
         NOV 20
NEWS 22
                 additional databases
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                 CA/CAplus to MARPAT accession number crossover limit increased
                 to 50,000
                 CA/CAplus patent kind codes will be updated
NEWS 24
         NOV 20
                 CAS REGISTRY updated with new ambiguity codes
NEWS 25
         DEC 01
                 CAS REGISTRY chemical nomenclature enhanced
NEWS 26
         DEC 11
              NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT
NEWS EXPRESS
              MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
              AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.
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as well as in synaptic membranes.
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                  35144-91-3
     25679-24-7
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         (degradation of, by brain synaptosomes)
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     FILE 'REGISTRY' ENTERED AT 13:36:14 ON 07 DEC 2006
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Ll
L2
             424 S DYMGWMDF/SQSP
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L3
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                5 S DOTA AND L3
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L6
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L10
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L12
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L13
           14458 S METAL CHELAT?
L14
                3 S L14 AND L10
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            347 DPTA
              1 DPTAS
            347 DPTA
                   (DPTA OR DPTAS)
           1203 DOTA
               4 L10 AND (DPTA OR DOTA)
L16
=> d ibib 1-4
L16 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN
                            2004:702005 CAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                            141:230668
                            Contrast enhanced x-ray phase imaging
TITLE:
                            Mattiuzzi, Marco; Arfelli, Fulvia; Menk, Ralf-Hendrik;
INVENTOR(S):
                            Rigon, Luigi; Besch, Hans-Juergen
                            Bracco Imaging S.P.A., Italy
PATENT ASSIGNEE(S):
                            PCT Int. Appl., 38 pp.
SOURCE:
                            CODEN: PIXXD2
                            Patent
DOCUMENT TYPE:
                            English
LANGUAGE:
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
                                                APPLICATION NO.
                                    DATE
                            KIND
      PATENT NO.
                            ----
                                                 _____
      _____
                                  20040826 WO 2004-EP1213 20040210
      WO 2004071535
                            A1
          W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
          CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU,
               MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN,
```

GQ, GW, ML, MR, NE, SN, TD, TG

20040210 EP 2004-709594 20051109 EP 1592456 A1 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ; EE, HU, SK 20060727 JP 2006-501789 20040210 Т2 JP 2006517558 20030213 US 2003-446986P PRIORITY APPLN. INFO.: W 20040210 WO 2004-EP1213

L16 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN

2001:43075 CAPLUS ACCESSION NUMBER:

135:118839 DOCUMENT NUMBER:

Use of the rat pancreatic CA20948 cell line for the TITLE:

comparison of radiolabelled peptides for

receptor-targeted scintigraphy and radionuclide

therapy

Bernard, B. F.; Krenning, E.; Breeman, W. A. P.; AUTHOR(S):

Visser, T. J.; Bakker, W. H.; Srinivasan, A.; De Jong,

Departments of Nuclear Medicine, University Hospital CORPORATE SOURCE:

Dijkzigt, Rotterdam, 3015 GD, Neth.

Nuclear Medicine Communications (2000), 21(11), SOURCE:

1079-1085

CODEN: NMCODC; ISSN: 0143-3636 Lippincott Williams & Wilkins

PUBLISHER: Journal DOCUMENT TYPE:

English LANGUAGE:

THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS 31 REFERENCE COUNT:

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN

1998:271563 CAPLUS ACCESSION NUMBER:

129:119669 DOCUMENT NUMBER:

Unsulfated DTPA- and DOTA-CCK analogs as TITLE:

specific high-affinity ligands for CCK-B

receptor-expressing human and rat tissues in vitro and

Reubi, J. C.; Waser, B.; Schaer, J. C.; Laederach, U.; AUTHOR(S):

Erion, J.; Srinivasan, A.; Schmidt, M. A.; Bugaj, J.

Ε.

Institute of Pathology, Division of Cell Biology and CORPORATE SOURCE:

Experimental Cancer Research, University of Berne,

Switz.

European Journal of Nuclear Medicine (1998), 25(5), SOURCE:

481-490

CODEN: EJNMD9; ISSN: 0340-6997

Springer-Verlag PUBLISHER:

Journal DOCUMENT TYPE: LANGUAGE:

English

THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS 26 REFERENCE COUNT: RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1997:594650 CAPLUS

DOCUMENT NUMBER:

127:259530

TITLE:

SOURCE:

Use of labeled CCK-B receptor ligands for the

detection, localization, and treatment of malignant

human tumors

INVENTOR(S):

Reubi, Jean-Claude

PATENT ASSIGNEE(S):

Mallinckrodt Medical, Inc., USA; Reubi, Jean-Claude

PCT Int. Appl., 61 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND DATE	APPLICATION NO.	DATE
		WO 1997-US3056	
WO 9731657	A3 19971023	WO 1397-033030	233.020
CA 2247430 EP 885017	AA 19970904 A2 19981223	R, GB, GR, IE, IT, LU CA 1997-2247430 EP 1997-908751	19970225
R: AT, BE, CH, IE, FI	DE, DK, ES, FR, GE	B, GR, IT, LI, LU, NL	, SE, MC, PT,
JP 2000506141 US 2004185510 PRIORITY APPLN. INFO.:	T2 20000523 A1 20040923	JP 1997-531108 US 2003-626229 EP 1996-200498 WO 1997-US3056 US 1999-125823	19970225 20030724 A 19960227 W 19970225
OTHER SOURCE(S):	MARPAT 127:259530	05 1999-125823	B1 19990119
=> s 110 and DTPA 9401 DTPA 6 DTPAS 9401 DTPA (DTPA O) L17 9 L10 AND D	R DTPAS) TPA		
=> d ibib 1-9			
L17 ANSWER 1 OF 9 CAPL ACCESSION NUMBER: DOCUMENT NUMBER: TITLE:  AUTHOR(S): CORPORATE SOURCE:  SOURCE: PUBLISHER: DOCUMENT TYPE: LANGUAGE: REFERENCE COUNT:	2004:424231 CAPLU 141:271813 Synthesis and char non-sulfated cycli a chelating group De Luca, Stefania; Centro Interunive: Bioattivi (CIRPEB; Biologica, Univer: 80134, Italy Journal of Peptide CODEN: JPSIEI; IS: John Wiley & Sons Journal English 13 THERE ARE 1 RECORD. ALL	racterization of a suic CCK8 analogue function for metal labelling; Morelli, Giancarlo rsitario per la Ricer) and Dipartimento di sita di Napoli "Federe Science (2004), 10(SN: 1075-2617 Ltd.  3 CITED REFERENCES AV CITATIONS AVAILABLE	ca sui Peptidi Chimica cico II", Naples, 5), 265-273
L17 ANSWER 2 OF 9 CAPI ACCESSION NUMBER: DOCUMENT NUMBER: TITLE:	and Technetium-99	US ivo Characterization m Labeled CCK-8 Deriv	atives for CCK-B
AUTHOR(S):	Arra, C.; Affuso, D.; De Luca, S.; Morelli, G.; Salv	M.; Caraco, C.; Del A.; Accardo, A.; Mar Pedone, C.; Visentin, atore, M.	nsi, R.; Tesauro, R.; Mazzi, U.;
CORPORATE SOURCE:	Italv	rutture e Bioimmagini	
SOURCE:	19(1), 93-98 CODEN: CBRAFJ; IS		ais (2004),
PUBLISHER:	Mary Ann Liebert, Journal	Inc.	

Mary Ann Liebert, Inc.
Journal
English
16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS LANGUAGE: REFERENCE COUNT:

DOCUMENT TYPE:

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT L17 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 2003:133309 CAPLUS 138:197782 DOCUMENT NUMBER: Peptides conjugates, their derivatives with metal TITLE: complexes and use thereof for magnetic resonance imaging (MRI) Aime, Silvio; Gianolio, Eliana; Morelli, Giancarlo; INVENTOR(S): Pedone, Carlo; Tesauro, Diego; Lattuada, Luciano; Visigalli, Massimo; Anelli, Pier Lucio Bracco Imaging S.P.A., Italy PATENT ASSIGNEE(S): PCT Int: Appl., 44 pp. SOURCE: CODEN: PIXXD2 Patent DOCUMENT TYPE: English LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION: DATE DATE APPLICATION NO. KIND PATENT NO. \_\_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ WO 2002-EP8382 20020726 WO 2003014157 A2 20030220 20031113 . А3 WO 2003014157 PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG AU 2002-328981 20020726 20030224 AU 2002328981 A1 EP 2002-764797 20020726 20040428 A2 EP 1412383 20061115 В1 EP 1412383 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LÜ, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK 20020726 JP 2003-519106 20050421 JP 2005510461 T2 US 2004-485847 20040902 US 2005008573 20050113 A1 A 20010803 IT 2001-MI1708 PRIORITY APPLN. INFO.: W 20020726 WO 2002-EP8382 MARPAT 138:197782 OTHER SOURCE(S): L17 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN 2001:609701 CAPLUS ACCESSION NUMBER: 136:321340 DOCUMENT NUMBER: New radiolabeled CCK-8 analogues [Tc-99m-GH-CCK-8 and TITLE: Tc-99m-DTPA-CCK-8]: preparation and biodistribution studies in rats and rabbits Ertay, T.; Unak, P.; Bekis, R.; Yurt, F.; Biber, F. AUTHOR(S): Z.; Durak, H. Dept. of Nuclear Medicine, Dokuz Eylul University, CORPORATE SOURCE: Medical School, Inciralti, Izmir, Turk. Nuclear Medicine and Biology (2001), 28(6), 667-678 SOURCE:

CODEN: NMBIEO; ISSN: 0969-8051

THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS

Elsevier Science Inc.

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT L17 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

32

Journal

English

1999:402924 CAPLUS ACCESSION NUMBER: DOCUMENT NUMBER: 131:225550

PUBLISHER:

LANGUAGE:

DOCUMENT TYPE:

REFERENCE COUNT:

TITLE: Radiolabeled peptides for targeting

cholecystokinin-B/gastrin receptor-expressing tumors

AUTHOR(S): Behr, Thomas M.; Jenner, Niels; Behe, Martin;

Angerstein, Christa; Gratz, Stefan; Raue, Friedhelm;

Becker, Wolfgang

CORPORATE SOURCE: Department of Nuclear Medicine, Georg-August-

University, Gottingen, D-37075, Germany

SOURCE: Journal of Nuclear Medicine (1999), 40(6), 1029-1044

CODEN: JNMEAQ; ISSN: 0161-5505 Society of Nuclear Medicine, Inc.

PUBLISHER: Society of DOCUMENT TYPE: Journal

DOCUMENT TYPE: Journal LANGUAGE: English

REFERENCE COUNT: . 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:396519 CAPLUS

DOCUMENT NUMBER: 131:200015

TITLE: Tri-t-butyl-DTPA: a versatile synthon for

the preparation of DTPA-containing peptides

by solid phase

AUTHOR(S): Srinivasan, Ananth; Schmidt, Michelle A.

CORPORATE SOURCE: Mallinckrodt Inc., Hazelwood, MO, 63042, USA

SOURCE: Peptides: Frontiers of Peptide Science, Proceedings of the American Peptide Symposium, 15th, Nashville, June

14-19, 1997 (1999), Meeting Date 1997, 267-268. Editor(s): Tam, James P.; Kaumaya, Pravin T. P.

Kluwer: Dordrecht, Neth.

CODEN: 67UCAR
Conference

DOCUMENT TYPE: Conferen LANGUAGE: English

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:271563 CAPLUS

DOCUMENT NUMBER: 129:119669

TITLE: Unsulfated DTPA- and DOTA-CCK analogs as

specific high-affinity ligands for CCK-B

receptor-expressing human and rat tissues in vitro and

in vivo

AUTHOR(S): Reubi, J. C.; Waser, B.; Schaer, J. C.; Laederach, U.;

Erion, J.; Srinivasan, A.; Schmidt, M. A.; Bugaj, J.

Ε.

CORPORATE SOURCE: Institute of Pathology, Division of Cell Biology and

Experimental Cancer Research, University of Berne,

Switz.

SOURCE: European Journal of Nuclear Medicine (1998), 25(5),

481-490

CODEN: EJNMD9; ISSN: 0340-6997

PUBLISHER: Springer-Verlag

DOCUMENT TYPE: Journal LANGUAGE: English

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:594650 CAPLUS

DOCUMENT NUMBER: 127:259530

TITLE: Use of labeled CCK-B receptor ligands for the

detection, localization, and treatment of malignant

human tumors

INVENTOR(S):
Reubi, Jean-Claude

PATENT ASSIGNEE(S): Mallinckrodt Medical, Inc., USA; Reubi, Jean-Claude

SOURCE: PCT Int. Appl., 61 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

NGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.		KIND DA	ATE A	PPLICATION NO.	DATE
WO 9731657 WO 9731657			9970904 W	O 1997-US3056	19970225
RW: AT CA 2247430 EP 885017 R: AT	, BE, CH,	AA 19 A2 19	9970904 C 9981223 E	A 1997-2247430 P 1997-908751	LU, MC, NL, PT, SE 19970225 19970225 NL, SE, MC, PT,
JP 2000506 US 2004185 PRIORITY APPLN.	510		0040923 U	P 1997-531108 S 2003-626229 P 1996-200498 O 1997-US3056 S 1999-125823	19970225 20030724 A 19960227 W 19970225

OTHER SOURCE(S):

MARPAT 127:259530

L17 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1989:69756 CAPLUS

DOCUMENT NUMBER:

110:69756

TITLE:

Effects of cholecystokinin-octapeptide (CCK-8) on food

intake and gastric emptying in man

AUTHOR(S):

Muurahainen, Norma; Kissileff, Harry R.; Derogatis,

Andrew J.; Xavier Pi Sunyer, F.

CORPORATE SOURCE:

Coll. Physicians Surg., Columbia Univ., New York, NY,

10025, USA

SOURCE:

Physiology & Behavior (1988), 44(4-5), 645-9

CODEN: PHBHA4; ISSN: 0031-9384

DOCUMENT TYPE:

LANGUAGE:

Journal English

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L17 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

AB . . . infusions of CCK-8 and saline on sep. nonconsecutive days after they had consumed 500 g of tomato soup tagged with technetium-99-DTPA. Intake of a test meal was measured 20 min after consumption of the soup whereas gastric emptying was simultaneously monitored. . .

IT 25126-32-3

RL: BIOL (Biological study)

(appetite and stomach emptying response to, in man)

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GASTRICO Y EN LA SECRECION POSPRANDIAL DE INSULINA EN EL

HOMBRE

AUTHOR:

HIDALGO GRAU, LUIS ANTONIO

CORPORATE SOURCE:

UNIVERSITAT AUTONOMA DE BARCELONA (SPAIN) (5852)

SOURCE:

Dissertation Abstracts International, (1993) Vol. 56, No. 1C, p. 157. Order No.: AARC391489 (not available for sale by UMI). SERVEI DE PUBLICACIONS DE LA UNIVERSITAT AUTONOMA DE BARCELONA, EDIFICI RECTORAT, APARTAT POSTAL 20, E-08193

BELLATERRA (BARCELONA), SPAIN.

ISBN: 84-7929-812-X.

DOCUMENT TYPE:

Dissertation

FILE SEGMENT:

DAI

LANGUAGE:

Spanish

ENTRY DATE:

Entered STN: 19950321

Last Updated on STN: 19950321

### => d kwic 1-2

L20 ANSWER 1 OF 2 DISSABS COPYRIGHT (C) 2006 ProQuest Information and Learning Company; All Rights Reserved on STN

. . of radioisotopes for physiological studies. Their use for AΒ the labelling of small compounds such as drugs has not been reported.

Cholecystokinin (CCK) is a hormone whose actions have been associated with satiety, and whose levels have been found to be abnormal.  $\sigma = 111$  or  $\tau \simeq 1$  or  $\tau \simeq 1$ chelators is reported. The synthesis of disubstituted as opposed to monosubstituted EDTA and DTPA resulted from reaction of a model amine with the dianhydrides of EDTA and DTPA under various reaction conditions.

L20 ANSWER 2 OF 2 DISSABS COPYRIGHT (C) 2006 ProQuest Information and Learning Company; All Rights Reserved on STN

ENDOGENOUS CHOLECYSTOKININ MODULATES GASTRIC EMPTYING AND TΙ POSTPRANDIAL RELEASE OF INSULIN IN HUMANS INFLUENCIA DE LA COLECISTOKININA ENDOGENA EN EL VACIAMIENTO GASTRICO Y. .

Aim of the study. To determine the effect of endogenous AB cholecystokinin (CCK) on gastric emptying and postprandial release of insulin in humans.

Materials and method. Six healthy volunteers underwent three experiments.. . . liquid meal containing 100 g glucose, and an egg yolk mixed with 150 ml of milk. To evaluate gastric emptying, Tc99-DTPA (2 mCu) was added to the meal. To evaluate gallbladder emptying, Tc99-HIDA (5 mCu) was given i.v. one hour before. . .

=> s metal chelat?

34727 METAL

11101 METALS

40243 METAL

(METAL OR METALS)

4454 CHELAT?

497 METAL CHELAT? L21

(METAL (W) CHELAT?)

=> d his

(FILE 'HOME' ENTERED AT 13:35:48 ON 07 DEC 2006)

FILE 'REGISTRY' ENTERED AT 13:36:14 ON 07 DEC 2006

136 S DY'NLE'GW'NLE'DF/SQSP  $\cdot L1$ 

424 S DYMGWMDF/SQSP L2

FILE 'CAPLUS' ENTERED AT 13:39:00 ON 07 DEC 2006

L3 84 S L1

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0 S DPTA AND L3
L4
L5
              5 S DOTA AND L3
         134722 S CHELAT?
L6
             12 S L6 AND L3
L7
              0 S L7 NOT PY>1997
L8
              1 S L7 NOT PY>1998 /
L9
           4485 S L2
L10
             49 S L10 AND L6
Lll
             20 S L11 NOT PY>1997
L12
             20 S L11 NOT PY>1996
L13
          14458 S METAL CHELAT?
L14
              3 S L14 AND L10
L15
              4 S L10 AND (DPTA OR DOTA)
L16
              9 S L10 AND DTPA
L17
     FILE 'DISSABS' ENTERED AT 13:46:43 ON 07 DEC 2006
            323 S CHOLECYSTOKININ OR (CCK-8 OR CCK8 OR (CCK () 8))
L18
            360 S DTPA OR DOTA
L19
              2 S L19 AND L18
L20
            497 S METAL CHELAT?
L21
=> s 121 and 118
             0 L21 AND L18
L22
=> file pctfull
                                                   SINCE FILE
                                                                   TOTAL
COST IN U.S. DOLLARS
                                                        ENTRY
                                                                 SESSION
                                                                  136.00
FULL ESTIMATED COST
                                                         7.67
                                                   SINCE FILE
                                                                   TOTAL
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)
                                                                 SESSION
                                                        ENTRY
                                                          0.00
                                                                    -3.00
CA SUBSCRIBER PRICE
FILE 'PCTFULL' ENTERED AT 13:50:53 ON 07 DEC 2006
COPYRIGHT (C) 2006 Univentio
                                            <20061205/UP>
                            5 DEC 2006
FILE LAST UPDATED:
                                200648
                                               <200648/EW>
MOST RECENT UPDATE WEEK:
FILE COVERS 1978 TO DATE
>>> IMAGES ARE AVAILABLE ONLINE AND FOR EMAIL-PRINTS <<<
>>> NEW IPC8 DATA AND FUNCTIONALITY NOW AVAILABLE IN THIS FILE.
    http://www.stn-international.de/stndatabases/details/ipc-reform.html >>>
>>> FOR CHANGES IN PCTFULL PLEASE SEE HELP CHANGE
    (last updated April 10, 2006) <<<
=> s cholecystokinin or (CCK-8 or CCK8 or (CCK () 8))
          1899 CHOLECYSTOKININ
           132 CHOLECYSTOKININS
          1949 CHOLECYSTOKININ
                  (CHOLECYSTOKININ OR CHOLECYSTOKININS)
          2003 CCK
            36 CCKS
          2007 CCK
                  (CCK OR CCKS)
       1002744 8
            255 CCK-8
                  (CCK(W)8)
             63 CCK8
           2003 CCK
             36 CCKS
           2007 CCK
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(CCK OR CCKS)
       1002744 8
           255 CCK (W) 8
          2006 CHOLECYSTOKININ OR (CCK-8 OR CCK8 OR (CCK (W) 8))
L23
=> s DPTA or DOTA
           910 DPTA
             1 DPTAS
           910 DPTA
                 (DPTA OR DPTAS)
          1767 DOTA
             5 DOTAS
          1768 DOTA
                 (DOTA OR DOTAS)
          2224 DPTA OR DOTA
L24
=> s DTPA or DOTA
          5576 DTPA
           12 DTPAS
          5579 DTPA
                 (DTPA OR DTPAS)
          1767 DOTA
             5 DOTAS
          1768 DOTA
                 (DOTA OR DOTAS)
          6121 DTPA OR DOTA
L25
=> s 125 and 123
         110 L25 AND L23
L26
=> s 126 not py>1996
        935225 PY>1996
            10 L26 NOT PY>1996
1.27
=> d ibib 1-10
                                   COPYRIGHT 2006 Univentio on STN
L27
       ANSWER 1 OF 10
                         PCTFULL
                        2001076631 PCTFULL
ACCESSION NUMBER:
       no bibliographic data available - please use FPI for PI information
DESIGNATED STATES
                                   COPYRIGHT 2006 Univentio on STN
       ANSWER 2 OF 10
                         PCTFULL
1.27
                        1996040293 PCTFULL ED 20020514
ACCESSION NUMBER:
                        STRUCTURALLY DETERMINED METALLO-CONSTRUCTS AND
TITLE (ENGLISH):
                        APPLICATIONS
                        METALLO-ASSEMBLAGES DETERMINES STRUCTURALEMENT ET
TITLE (FRENCH):
                        APPLICATIONS
                        SHARMA, Shubh, D.
INVENTOR(S):
                        RHOMED INCORPORATED;
PATENT ASSIGNEE(S):
                        SHARMA, Shubh, D.
                        English
LANGUAGE OF PUBL.:
DOCUMENT TYPE:
                        Patent
PATENT INFORMATION:
                                           KIND
                                                    DATE
                        NUMBER
                        ______
                                             Al 19961219
                        WO 9640293
DESIGNATED STATES
                        AL AM AT AU AZ BB BG BR BY CA CH CN CZ DE DK EE ES FI
       W:
                        GB GE HU IL IS JP KE KG KP KR KZ LK LR LS LT LU LV MD
                        MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM
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                        MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE IT LU MC
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                                             A 19960606
                        WO 1996-US9840
APPLICATION INFO .:
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US 1995-8/476,652

PRIORITY INFO.:

19950607

US 1996-8/660,697 19960605 COPYRIGHT 2006 Univentio on STN PCTFULL ANSWER 3 OF 10 L27 1996039128 PCTFULL ED 20020514 ACCESSION NUMBER: PROTEIN PARTICLES FOR THERAPEUTIC AND DIAGNOSTIC USE TITLE (ENGLISH): PARTICULES PROTEIQUES A USAGE THERAPEUTIQUE ET TITLE (FRENCH): DIAGNOSTIQUE YEN, Richard, C., K. INVENTOR(S): HEMOSPHERE, INC.; PATENT ASSIGNEE(S): YEN, Richard, C., K. English LANGUAGE OF PUBL.: Patent DOCUMENT TYPE: PATENT INFORMATION: KIND DATE NUMBER \_\_\_\_\_\_ WO 9639128 A1 19961212 DESIGNATED STATES AL AM AT AU AZ BB BG BR BY CA CH CN CZ DE DK EE ES FI W: GB GE HU IL IS JP KE KG KP KR KZ LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG US UZ VN KE LS MW SD SZ UG AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG WO 1996-US9458 A 19960604 APPLICATION INFO .: US 1995-8/471,650 19950606 PRIORITY INFO.: US 1995-8/554,919 19951109 PCTFULL COPYRIGHT 2006 Univentio on STN ANSWER 4 OF 10 L27 1995015118 PCTFULL ED 20020514 ACCESSION NUMBER: GAS MICROSPHERES FOR TOPICAL AND SUBCUTANEOUS TITLE (ENGLISH): APPLICATION MICROSPHERES GAZEUSES POUR APPLICATION TOPIQUE ET TITLE (FRENCH): SOUS-CUTANEE UNGER, Evan, C.; INVENTOR(S): MATSUNAGA, Terry; YELLOWHAIR, David UNGER, Evan, C.; PATENT ASSIGNEE(S): MATSUNAGA, Terry; YELLOWHAIR, David LANGUAGE OF PUBL.: English DOCUMENT TYPE: Patent PATENT INFORMATION: KIND DATE NUMBER ------Al 19950608 WO 9515118 DESIGNATED STATES AU CA CN JP AT BE CH DE DK ES FR GB GR IE IT LU MC NL W: PT SE A 19941130 WO 1994-US13817 APPLICATION INFO .: 19931130 US 1993-8/159,674 PRIORITY INFO.: US 1993-8/159,687 19931130 19931130 US 1993-8/160,232 19940916 US 1994-8/307,305 19941129 US 1994-8/346,426 PCTFULL COPYRIGHT 2006 Univentio on STN ANSWER 5 OF 10 1995005842 PCTFULL ED 20020514 ACCESSION NUMBER:

METHOD AND DEVICE FOR TREATING GASTROINTESTINAL MUSCLE TITLE (ENGLISH):

DISORDERS AND OTHER SMOOTH MUSCLE DYSFUNCTION PROCEDE ET DISPOSITIF POUR TRAITER LES TROUBLES

MUSCULAIRES GASTRO-INTESTINAUX ET AUTRES

DYSFONCTIONNEMENTS DES MUSCLES LISSES

PASRICHA, Pankaj, J.; INVENTOR(S): KALLOO, Anthony, N.

TITLE (FRENCH):

THE JOHNS HOPKINS UNIVERSITY PATENT ASSIGNEE(S):

DOCUMENT TYPE:

Patent

PATENT INFORMATION:

NUMBER KIND DATE \_\_\_\_\_ WO 9505842 A1 19950302

DESIGNATED STATES

W:

CA JP AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE

WO 1994-US9759 A 19940823 APPLICATION INFO.: US 1993-112,088 19930826 PRIORITY INFO.:

L27

ANSWER 6 OF 10 PCTFULL COPYRIGHT 2006 Univentio on STN

1994004674 PCTFULL ED 20020513 ACCESSION NUMBER:

HUMAN MELANOCYTE STIMULATING HORMONE RECEPTOR TITLE (ENGLISH): RECEPTEUR D'HORMONE STIMULANT LE MELANOCYTE CHEZ TITLE (FRENCH):

L'HOMME

INVENTOR(S):

WIKBERG, Jarl; CHHAJLANI, Vijay WIKBERG, Jarl; CHHAJLANI, Vijay

PATENT ASSIGNEE(S):

English

LANGUAGE OF PUBL.: DOCUMENT TYPE:

Patent

PATENT INFORMATION:

NUMBER KIND DATE \_\_\_\_\_\_ A1 19940303 WO 9404674

DESIGNATED STATES

W:

AU BB BG BR BY CA CZ FI HU JP KP KR KZ LK MG MN MW NO NZ PL RO RU SD SK UA US VN AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE

SN TD TG

APPLICATION INFO .: PRIORITY INFO.:

A 19930820 WO 1993-DK273 19920821 DK 1992-1046/92 DK 1992-1118/92 19920910 19930505 DK 1993-528/93

ANSWER 7 OF 10

PCTFULL COPYRIGHT 2006 Univentio on STN 1993018797 PCTFULL ED 20020513

ACCESSION NUMBER: TITLE (ENGLISH):

METHOD OF INTRAOPERATIVELY DETECTING AND LOCATING

TUMORAL TISSUES

TITLE (FRENCH):

PROCEDE POUR DETECTER ET LOCALISER DE FACON

PEROPERATOIRE DES TISSUS TUMORAUX

INVENTOR(S):

ENSING, Geert, Jacob; PANEK, Karel, Jan; DOEDENS, Bareld, Jan

PATENT ASSIGNEE(S):

MALLINCKRODT MEDICAL, INC.;

ENSING, Geert, Jacob; PANEK, Karel, Jan; DOEDENS, Bareld, Jan

LANGUAGE OF PUBL.: DOCUMENT TYPE:

English Patent

PATENT INFORMATION:

DATE NUMBER KIND \_\_\_\_\_\_ WO 9318797 A1 19930930

DESIGNATED STATES

W:

AU CA JP US AT BE CH DE DK ES FR GB GR IE IT LU MC NL

PT SE

APPLICATION INFO .: PRIORITY INFO.:

A 19930324 WO 1993-US2772 NL 1992-92200848.7 19920325

ANSWER 8 OF 10 - L27

PCTFULL COPYRIGHT 2006 Univentio on STN

1992004916 PCTFULL ED 20020513 ACCESSION NUMBER:

PARTICULATE AGENTS TITLE (ENGLISH):

AGENTS SOUS FORME DE PARTICULES TITLE (FRENCH):

FILLER, Aaron, Gershon INVENTOR(S):

PATENT ASSIGNEE(S): ST. GEORGE'S ENTERPRISES LIMITED; FILLER, Aaron, Gershon LANGUAGE OF PUBL.: English DOCUMENT TYPE: Patent PATENT INFORMATION: KIND DATE NUMBER \_\_\_\_ \_\_\_\_\_ A2 19920402 WO 9204916 DESIGNATED STATES AT AU BE CA CH DE DK ES FR GB GR IT JP LU NL NO SE US W: A 19910913 APPLICATION INFO.: WO 1991-EP1780 GB 1990-9020075.9 19900914 PRIORITY INFO.: 19901030 GB 1990-9023580.5 GB 1990-9027293.1 19901217 GB 1991-9100233.7 19910107 GB 1991-9100981.1 19910116 GB 1991-9102146.9 19910131 GB 1991-9110876.1 19910520 19910730 GB 1991-9116373.3 GB 1991-9117851.7 19910819 GB 1991-9118676.7 199.10.83.0 .... ... ... ... PCTFULL COPYRIGHT 2006 Univentio on STN ANSWER 9 OF 10 L27 1992001469 PCTFULL ED 20020513 ACCESSION NUMBER: A COMPOSITION PROVIDING IMPROVED CLEARANCE OF BIOACTIVE TITLE (ENGLISH): SUBSTANCES FROM THE BLOODSTREAM COMPOSITION ASSURANT UNE MEILLEURE ELIMINATION DE TITLE (FRENCH): SUBSTANCES BIOACTIVES CONTENUES DANS LE SYSTEME SANGUIN SELMER, Johan INVENTOR(S): NOVO NORDISK A/S; PATENT ASSIGNEE(S): SELMER, Johan English LANGUAGE OF PUBL.: Patent DOCUMENT TYPE: PATENT INFORMATION: KIND DATE NUMBER \_\_\_\_\_ WO 9201469 A1 19920206 DESIGNATED STATES AT AU BE CA CH CS DE DK ES FI FR GB GR HU IT JP KR LU W: NL NO PL SE SU US A 19910724 WO 1991-DK215 APPLICATION INFO.: 19900724 DK 1990-1762/90 PRIORITY INFO.: ANSWER 10 OF 10 PCTFULL COPYRIGHT 2006 Univentio on STN L27 1989009625 PCTFULL ED 20020513 ACCESSION NUMBER: CONTRAST AGENTS FOR MAGNETIC RESONANCE IMAGING TITLE (ENGLISH): AMELIORATIONS APPORTEES A L'IMAGERIE PAR RESONANCE TITLE (FRENCH): MAGNETIQUE BERG, Arne; INVENTOR(S): KLAVENESS, Jo COCKBAIN, Julian, Roderick, Michaelson; PATENT ASSIGNEE(S): NYCOMED AS; BERG, Arne; KLAVENESS, Jo English LANGUAGE OF PUBL.: Patent DOCUMENT TYPE: PATENT INFORMATION: KIND DATE NUMBER WO 8909625 A1 19891019

DESIGNATED STATES
W:

AT AU BE CH DE DK FI FR GB IT JP LU NL NO SE US.

APPLICATION INFO.: WO 1989-EP376 A 19890406 PRIORITY INFO.: GB 1988-8808305.0 19880408

L27 ANSWER 10 OF 10 PCTFULL COPYRIGHT 2006 Univentio on STN

DETD . .

metal chelates, for example of aminopolycarboxylic acids such as nitrilotriacetic acid (NTA)j]NrNrN1rN'-ethylenediaminetetraacetic acid (EDTA), N-hydroxyethyl--N,N1,N1-ethylenediaminetriacetic acid (HEDTA)r NrNrN'r-N'',N''-diethylenetriaminepentaacetic acid (DTPA), and 1,4,7,10-tetraazacyclododecanetetraacetic acid (DOTA) (see for example EP-A-71564, EP-A-130934t DE-A-3401052 and US-A-4639365). and Nycomed AS have suggested the use of paramagnetic metal chelates of iminodiacetic acids (see. . .

Intravenous administration, at separate timesf of the positive contrast agent Gd DTPA-dimeglumine (which following such administration rapidly distributes extracellularly) and of superparamagnetic ferrite particles was proposed by Weissleder et al.'in AJR 150: 561-566 (1988) for imaging. . .

the reticuloendothelial system targetting negative contrast agents of W085/04330. However,, extracellularly distributing paramagnetic metal containing positive contrast agents, such as Gd DTPAF Gd DOTA and Od DTPA-BMA (the gadolinium chelate of the bismethylamide of DTPA), may be used according to the present invention for administration into body cavities or tracts having externally voiding ducts, e.g. for oral. . .

metal chelates in which the paramagnetic metal species + 3+ especially Dy 3+ are particularly is Tb or Sm or more preferred, eag, Dy DTPA-BMAr, or DyDTPA-beta-alanine-dextran (molecular weight 70000) where a blood pooling positive contrast agent is desired.

EDTA; DTPA-BMA; DOTA; desferrioxamine; and the physiologically acceptable salts thereof.

contrast agent, if uniform distribution after i.v. administration is desired, one may conveniently use as the chelating moiety a hydrophilic extracellular substance, such as DTPA or DOTA or a chelating agent as claimed in W089/00557. However, to achieve tissue- or duct-specificity, for either positive or negative MRI contrast agents. . .

the same equipment against distilled water to a volume of 1150 ml, the pH-was adjusted to 9 with N-methylmorpholine and 29.18g of DTPA-bis-anhydride was added while the pH was kept at 8 using the same base. When the solution became clear, the reaction mixture was. . .

Gd 4.6%; N 2.15%; Na 0.16%; Cl less than 0101%, 1 Free Gd (xylene orange titration), DTPA, GdDTPA? citric acid, or DMSO (HPLC): less than 0.01%

(The percentages in the analysis results are by weight).

in three of the dogs to which the positive and negative contrast agents were administered, 1.0 unit/kg bodyweight of cholecystokinin were given intravenously 60 minutes after administration of the paramagnetic contrast agent immediately followed by examinations in the transverse and frontal projections.

gall bladder was also encountered 15 to 30 minutes after contrast agent administration. After administration of the superparamagnetic and paramagnetic contrast agents and after cholecystokinin injection, the gall bladder was moderately contracted and visualization of the choledocus duct was achieved as well as contrast filling of the duodenum.

=> d ibib kwic 1-9

L27 ANSWER 1 OF 10 PCTFULL COPYRIGHT 2006 Univentio on STN

ACCESSION NUMBER: 2001076631 PCTFULL

no bibliographic data available - please use FPI for PI information

DESIGNATED STATES

DETD 37(4):449-57 [1997]; McHugh, PR. and Moran, TH., The stomach, cholecystokinin, and satiety, Fed. Proc. 45(5):13 84-90 [1986]; Lin, H.C. et al., Frequency ofgastric pacesetter potential depends on volume and site of distension,. . .

There may also be some interactions between 5-HT receptor-mediated effects and cholecystokinin-mediated effects on satiety. (Voight, J.P. et al., Evidencefor the involvement of the 5-HTIA receptor in CKK induced satiety in rats, Nauyn Schmiedebergs Arch. Pharmacol. 351(3):217-20 [1995]; Varga, G. et al., Effect of deramciclane, a new 5-HT receptor antagonist, on cholecystokinin -induced changes in ratgastrointesfinalfunction, Eur. J. Pharmacol. 367(2-3):315-23 [1999]; but see, Eberle-Wang, K. and Simansky, K.J., Yhe CKK-A receptor antagonist, devazepide, blocks. . .

2 o Behav. 43(3):943-47 [1992]). The neuropeptide hormone cholecystokinin is known to induce satiety, inhibit gastric emptying, and to stimulate digestive pancreatic and gall bladder activity. (Blevins, J.E. et al., Brain regions where cholecystokinin suppresses feeding in rats, Brain Res. 860(1-2):1-10 [2000]; Moran, TH. and McHugh, P.R., Cholecystokinin suppressesfood intake by inhibiting gastric emptying, Am. J. Physiol.

Cholecystokinin, and other neuropeptides, such as bombesin, arnylin, proopiomelanocortin, corticoptropin-releasing factor, galanin, melanin-concentrating hormone, neurotensin, agouti-related protein, leptin, and neuropeptide Y, are important 3. . .

```
(preferred dose range of 0 5 mg/kg), deramciclane (Varga,
      G. et al., Effect of deramciclane, a new 5-HT receptor antagonist, on
      cholecystokinin-
      1 0 induced changes in rat gastrointestinalfunction, Eur. J. Pharmacol.
      367 (2-3):315-23
      [1999]), or alosetron. 5-HT4 receptor antagonists are preferably used at
      0 with phosphate buffer, pH 7.0, at 2 mL/min. 60 minutes after the start
      of the perfusion,
      5 1
      -20 [Xi of Tc-DTPA (diethylenetlianiinepentaacetic acid) was
      delivered as a bolus into
      the test segment. Intestinal transit was then measured by counting the
      radioactivity of. . .
      liquid marker across the approximately 150 cm intestinal test segment by
      delivering
      about 20 gCi 'Tc chelated to diethyltriamine pentaacetic acid (
       DTPA) (Cunningham,
       K.M. et al., Use of technicium-99m (V)thiocyanate to measure gastric
       emptying offat,
       J. Nucl. Med. 32:878-881 [1991]) as a bolus into the. . . gamma well
       counter. After correcting
       all counts to time zero, intestinal transit was calculated as the
       cumulative percent recovery
       of the delivered Tc-DTPA. This method has been well validated
       over the years and
       appreciated for its advantage of minimal inadvertent marker loss. To
       demonstrate.
                         PCTFULL COPYRIGHT 2006 Univentio on STN
       ANSWER 2 OF 10
                        1996040293 PCTFULL ED 20020514
ACCESSION NUMBER:
                        STRUCTURALLY DETERMINED METALLO-CONSTRUCTS AND
TITLE (ENGLISH):
                        APPLICATIONS
                        METALLO-ASSEMBLAGES DETERMINES STRUCTURALEMENT ET
TITLE (FRENCH):
                        APPLICATIONS
                        SHARMA, Shubh, D.
INVENTOR(S):
                        RHOMED INCORPORATED;
PATENT ASSIGNEE(S):
                        SHARMA, Shubh, D.
                        English
LANGUAGE OF PUBL.:
                        Patent
DOCUMENT TYPE:
PATENT INFORMATION:
                                           KIND
                        NUMBER
                                           A1 19961219
                        WO 9640293
DESIGNATED STATES
                        AL AM AT AU AZ BB BG BR BY CA CH CN CZ DE DK EE ES FI
       W:
                        GB GE HU IL IS JP KE KG KP KR KZ LK LR LS LT LU LV MD
                        MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM
                        TR TT UA UG US UZ VN KE LS MW SD SZ UG AM AZ BY KG KZ
                        MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE IT LU MC
                        NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG
                                             A 19960606
                        WO 1996-US9840
APPLICATION INFO.:
                        US 1995-8/476,652
                                                19950607
PRIORITY INFO.:
                        US 1996-8/660,697
                                                19960605
     . . or Cu., to an equirnolar covalent
DETD
       adduct of diethylenetriaminepentaacetic acid (DT?A) with
       ethylenediamine. This adduct
       may be achieved by reacting ethylenediamine with DTPA
       -dianhydride. The amino group
       of the ethylenediamine moiety in this adduct, together with the free
       carboxylate of the DTPA
```

moiety, mimic the two primary integrin receptor-binding functionalities. The use of higher hornologues of ethylenediarnine, or use of other di-amines, such as. . a reversed turn structure as their hypothesized biologically active structure. The exan3ples of these include various peptide hormones such as somatostatin, cholecystokinin, opioid peptides, melanotropins, luteinizing hormone releasing hormone, tachykinins and various antibody epitopes. COPYRIGHT 2006 Univentio on STN ANSWER 3 OF 10 PCTFULL 1996039128 PCTFULL ED 20020514 ACCESSION NUMBER: PROTEIN PARTICLES FOR THERAPEUTIC AND DIAGNOSTIC USE TITLE (ENGLISH): PARTICULES PROTEIQUES A USAGE THERAPEUTIQUE ET TITLE (FRENCH): DIAGNOSTIQUE YEN, Richard, C., K. INVENTOR(S): HEMOSPHERE, INC.; PATENT ASSIGNEE(S): YEN, Richard, C., K. LANGUAGE OF PUBL.: English Patent DOCUMENT TYPE: PATENT INFORMATION: NUMBER KIND WO 9639128 A1 19961212 DESIGNATED STATES AL AM AT AU AZ BB BG BR BY CA CH CN CZ DE DK EE ES FI W: GB GE HU IL IS JP KE KG KP KR KZ LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG US UZ VN KE LS MW SD SZ UG AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG A 19960604 WO 1996-US9458 APPLICATION INFO .: 19950606 US 1995-8/471,650 PRIORITY INFO.: US 1995-8/554,919 19951109 . . factor beta receptor 14. anti-beta-lipoprotein 15. alpha 2-macroglobulin 16. streptokinase 17. anti-progesterone antibody 18. anti-leukotriene B4 antibody 19. CGGRGDF-NH2 20. doxorubicin 21. daunarubicin 22. EDTA-conjugated to HSA 23. DTPA-conjugated to HSA 24. technetium 25. gadolinium 26. HSA conjugated to FITC (Fluorescein Isothiocyanate) 27. HSA conjugated to TRITC (Tetramethylrhodamine B isothiocyanate) 28. HSA conjugated to. . . Tc99m can be achieved through direct covalent bonding or through a chelating agent. Examples of chelating agents are cysteine-cyclohexanol conjugate and DTPA Biologically active peptides: myl-L-Ala-D-Glu Amide

N-Acetyl-Asp-Glu 42

L27

DETD

```
N-Acetyl-Cholecystokinin and its fragments
      N-Acetyl-Hirudin and its fragments
      Acetyl-Leu-Leu-Argininal
      N-Acetyl-Leu-Leu-Methioninal
      N-Acetyl-Leu-Leu-Norleucinal
      Acetyl-Met-Asp-Arg-Val-Leu-Ser-Arg-Tyr
      N-Acetyl-Met-Leu-Phe
      N-Acetylmuramyl-D-alanyl-D-isoglutamine
      N-Acetylmuramyl-L-alanyl-D-isoglutamine
      N-Acetylmuramyl-L-alanyl-L-isoglutamine
      N-Acetylmuramyl-Ala-D-isoglutaminyl-Ne-stearoyl-Lys
      N-Acetyl-Phe-Nle-Arg-Phe Amide
      Acetyl-Renin Substrate Tetradecapeptide
      Acetyl-Ser-Asp-Lys-Pro
      Acetyl-Ser-Gln-Asn-Tyr
      Acetyl-Ser-Gln-Asn-Tyr-Pro-Val-Val Amide.
      Carassin
       N-Carboxymethyl-Phe-Leu
      Cardioexcitatory Peptide
      alpha-Casein and fragments
      Beta-Casomorphin
      Na-CBZ-Arg-Arg-Pro-Phe-His-Sta-Ile-His-Ne-BOC-Lys Methyl
                                                                     Ester
      CBZ-Leu-Val-Gly Diazomethyl Ketone
      N-CBZ-D-Phe-Phe-Gly
       N-CBZ-Pro-D-Leu
       N-CBZ-Pro-Leu-Gly Hydroxamate
       CD4 and fragments
       Cecropins
       Cerebellin
      Chemostactic Peptides
         Cholecystokinin and fragments
      Chorionic Gonadotropin and fragments
      Chromostatin-20
       Chymostatin
      Circumsporozoite (CS) Protein of Plasmodium falciparum
       repetitive sequences
       Collagen
       Conotoxin GI
      A-conotoxin GIIIB
      w-conotoxin GVIA
       a-conotoxin SI
      Copper.
      NITR7, DM-nitrophen, NITRS/AM; Ammonium N-
      nitrosophenyl-hydroxylamine; Ammonium purpurate;
       alpha-Benzoin oxime; N, N-Bis-(hydroxyethyl)-glycine;
       2,3-butane-dione dioxime; Trans-1,2-Diaminocyclo-
      hexanetetra-acetic acid (CDTA); Diethylene-
       triaminopenta-acetic acid (DTPA); 4,5-Dihydroxy-
      benzene-1, 3-disulphonic acid; 2, 3-Dimercapto-1-
       Propanol; Diphenylthio-carbazone; 2,2'-Dipyridyl;
       3,6-Disulpho-1,8-dihydroxy-naphthalene;
       Dithiooxamide; Eriochrome Black T; Ethylene-diamine;
       Ethylenediaminetetraacetic acid (EDTA); (Ethylene-
       dioxy)-diethylenedinitrilo-tetraacetic acid (EGTA);
       o-Hydroxybenzaldehyde.
                         PCTFULL.
                                   COPYRIGHT 2006 Univentio on STN
      ANSWER 4 OF 10
                        1995015118 PCTFULL ED 20020514
ACCESSION NUMBER:
                        GAS MICROSPHERES FOR TOPICAL AND SUBCUTANEOUS
TITLE (ENGLISH):
                        APPLICATION
                        MICROSPHERES GAZEUSES POUR APPLICATION TOPIQUE ET
TITLE (FRENCH):
```

SOUS-CUTANEE

UNGER, Evan, C.; INVENTOR(S):

MATSUNAGA, Terry; YELLOWHAIR, David

PATENT ASSIGNEE(S):

UNGER, Evan, C.; MATSUNAGA, Terry; YELLOWHAIR, David

LANGUAGE OF PUBL.: English DOCUMENT TYPE: Patent

PATENT INFORMATION:

KIND NUMBER WO 9515118 A1 19950608

DESIGNATED STATES

W:

AU CA CN JP AT BE CH DE DK ES FR GB GR IE IT LU MC NL

A 19941130

PT SE

WO 1994-US13817 APPLICATION INFO .: US 1993-8/159,674 PRIORITY INFO.:

19931130 19931130 US 1993-8/159,687 19931130 US 1993-8/160,232 US 1994-8/307,305 19940916. 19941129 US 1994-8/346,426

DETD . . . of topical or

subcutaneous application and delivery: melanin concentrating hormone,, melanin stimulating hormone, trypsin inhibitor, Bowman Burk inhibitor, luteinizing hormone releasing hormone (LHRH), bombesin, cholecystokinin, insulin, gastrin, endorphins, enkephalins, growth hormone, prolactin, oxytocin, follicle stimulating hormone (FSH), human chorionic gonadotropin,, corticotropin, 0 and lipotropin, calcitonin, glucagon, thyrotropin, elastin, cyclosporin,.

Suitable chelants and chelating agents include, but are not limited to: penicillamine; citrate; ascorbate; diethylenetriaminepentaacetic acid (DTPA), and derivatives and salts thereof; dihydroxypropylethylenediamine (DPEA), and derivatives and salts thereof; cyclohexanediaminetetraacetic acid (CHTA), and derivatives and salts thereof; . . thereof; N,Nfethylenediaminetetraacetic acid (EDTA), and. (1,2-ethanedivinylbis(oxy-2,1-phenylene))bis(N-(carboxymethyl) (BAPTA), and derivatives and salts thereof; aminophenol-triacetic acid (APTRA), and derivatives and salts thereof; tetrakis(2-pyridylmethyl)ethylenediamine (TPEN), and derivatives and salts thereof; 1.4,7,10-tetraazacyclodecane (DOTA) and derivatives and salts thereof; and cyanins and their derivatives, Furthermore, immunosuppressants or antiinflammatory preparations can be incorporated into the gas and gaseous. .

These metal ions may be incorporated into the microspheres as free salts, as complexes, e,g., with EDTA, DTPA, DOTA desferrioxamine, or as oxides of the metal ions, Additionally, derivatized complexes of the metal ions may be bound to lipid head groups,. .

CLMEN. . . peptides selected from the group consisting of melanin concentrating hormone, melanin stimulating hormone, trypsin inhibitor, Bowman Burk inhibitor, luteinizing hormone releasing hormone, bombesin, cholecystokinin, insulin, gastrin, endorphins, enkephalins, growth hormone, prolactin, oxytocin, follicle stimulating hormone, human chorionic gonadotropin, corticotropin, 0-lipotropin, 7-lipotropin,

calcitonin, glucagon, thyrotropin, elastin, cyclosporin, and collagen, and. .

peptides selected from the group consisting of melanin concentrating hormone, melanin stimulating hormone, trypsin inhibitor, Bowman Burk inhibitor, luteinizing hormone releasing hormone, bombesin, cholecystokinin, insulin, 10 gastrin,, endorphins, enkephalins, growth hormone, prolactin, oxytocin, follicle stimulating hormone, human chorionic gonadotropin, corticotropin, fl-lipotropin, T-lipotropin, calcitonin, glucagon, thyrotropin, elastin, cyclosporin, and collagen,.

PCTFULL L27 ANSWER 5 OF 10

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ACCESSION NUMBER:

1995005842 PCTFULL ED 20020514

TITLE (ENGLISH):

TITLE (FRENCH):

METHOD AND DEVICE FOR TREATING GASTROINTESTINAL MUSCLE

DISORDERS AND OTHER SMOOTH MUSCLE DYSFUNCTION PROCEDE ET DISPOSITIF POUR TRAITER LES TROUBLES

MUSCULAIRES GASTRO-INTESTINAUX ET AUTRES

DYSFONCTIONNEMENTS DES MUSCLES LISSES

INVENTOR(S):

PASRICHA, Pankaj, J.; KALLOO, Anthony, N.

PATENT ASSIGNEE(S):

THE JOHNS HOPKINS UNIVERSITY

\_\_\_\_\_

Patent

DOCUMENT TYPE: PATENT INFORMATION:

NUMBER

KIND DATE

WO 9505842

A1 19950302

DESIGNATED STATES

W:

CA JP AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE

APPLICATION INFO .: PRIORITY INFO.:

WO 1994-US9759 A 19940823 19930826 US 1993-112,088

Figs. 3A and B show the effect of intrasphincteric injection of BoTx on DETD LES response to cholecystokinin octapeptide (CCK)

0.01). The response of the LES to the IV administration of edrophonium (Tensilon; ICN Pharmaceuticals Inc., Costa Mesa, CA) and cholecystokinin

octapeptide (CCK-8) (Kinevac; ER Squibb amp; Sons,

Princeton, NJ) in three

additional piglets was also measured. LES pressures, measured by a DENTSLEEVE, were.

retention studies

After an overnight fast, patients were asked to ingest a corn-flake meal with milk containing 0.531 mci 99 aiTc DTPA. Subsequently,

serial dynamic

images were obtained with the subject sitting erect in front of a gamma camera.

Retention was expressed. . .

1.27 ANSWER 6 OF 10

COPYRIGHT 2006 Univentio on STN

1994004674 PCTFULL ED 20020513 ACCESSION NUMBER:

HUMAN MELANOCYTE STIMULATING HORMONE RECEPTOR TITLE (ENGLISH): RECEPTEUR D'HORMONE STIMULANT LE MELANOCYTE CHEZ TITLE (FRENCH):

L'HOMME

INVENTOR(S): WIKBERG, Jarl;

CHHAJLANI, Vijay

WIKBERG, Jarl; PATENT ASSIGNEE(S): CHHAJLANI, Vijay

English

LANGUAGE OF PUBL.: DOCUMENT TYPE:

Patent

PATENT INFORMATION:

DATE KIND NUMBER

WO 9404674 A1 19940303

DESIGNATED STATES

W:

AU BB BG BR BY CA CZ FI HU JP KP KR KZ LK MG MN MW NO NZ PL RO RU SD SK UA US VN AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE

SN TD TG

APPLICATION INFO.: PRIORITY INFO.:

WO 1993-DK273 A 19930820 DK 1992-1046/92 19920821 DK 1992-1118/92 19920910 DK 1993-528/93 19930505

DETD . . . the

substance P receptor, substance K receptor, endothelin receptor, angiotensin receptor, chemoattractant peptide receptor, bombesin receptor, oxytocin receptor, vasopressin receptor, antidiuretic hormone receptor, gastrin receptor, cholecystokinin receptor, canabinoid receptor, follicle stimulating hormone receptor, luteinizing hormone receptor, growth hormone receptor, thyrotropin receptor, calcitonin receptor, calcitonin gene related peptide receptor and/or parathyroid. . .

isothiocyanatobenzyl EDTA (CITC), diethylenetriaminepenta-acetic acid (DTPA) and be coupled via the mixed anhydride or the cyclic anhydride (Hnatowich 1990). However, since such complexes may provide somewhat unstable chelation and moreover during their manufacture intra and intermolecular cross linking of antibodies, other chelators such as e.g. GYK-DTPA or SCN-Bz-DTPA may be used as an alternative (Hnatowich 1990). Radiolabelling of 99mTc to the antibody may be afforded by using direct labelling techniques. . .

L27 ANSWER 7 OF 10

PCTFULL COPYRIGHT 2006 Univentio on STN .

ACCESSION NUMBER: .

1993018797 PCTFULL ED 20020513

TITLE (ENGLISH):

METHOD OF INTRAOPERATIVELY DETECTING AND LOCATING

TUMORAL TISSUES

TITLE (FRENCH):

PROCEDE POUR DETECTER ET LOCALISER DE FACON

PEROPERATOIRE DES TISSUS TUMORAUX

INVENTOR(S):

ENSING, Geert, Jacob; PANEK, Karel, Jan; DOEDENS, Bareld, Jan

PATENT ASSIGNEE(S):

MALLINCKRODT MEDICAL, INC.;

ENSING, Geert, Jacob; PANEK, Karel, Jan; DOEDENS, Bareld, Jan

LANGUAGE OF PUBL.: DOCUMENT TYPE: English Patent

PATENT INFORMATION:

DESIGNATED STATES

W:

AU CA JP US AT BE CH DE DK ES FR GB GR IE IT LU MC NL

PT SE

APPLICATION INFO.: PRIORITY INFO.:

WO 1993-US2772 A 19930324 NL 1992-92200848.7 19920325

DETD . . . thyroid-stimulating hormone,

vasoactive intestinal polypeptide, prolactin, thyrotropin-releasing

hormone, insulin,

adrenocorticotropic hormone (ACTH), in particular o(--MSH

(melanocyte-stimulating

hormone) and f -(methylsulfonyl)-L- c4-aminobutyryl-L-

d-glutamyl-L-histidyl-L-

O phenylaianyl-D-lysyl-L-phenylaianine, cholecystokinin, corticotropin-releasing hormone (CRH), growth hormone-releasing hormone (GRH), arginine and vasopressin, oxytocin, glucagon, secretin, parathyroid hormone (PTH) and related peptide. bond to an amino group of said peptide and is derived from ethylene diamine tetra-acetic acid (EDTA), ethylene triamine penta-acetic acid (DTPA), ethyleneglycol-0,0'-bis(2aminoethyl)-N,N,N',N'-tetra-acetic acid (EGTA), N,N-bis(hydroxybenzyl)ethylenediamine-N, N'-diacetic acid (HBED), triethylene tetramine hexa-acetic acid (TTHA), 1,4,7,10-tetraazacyclododecane-N,N',N,N'-tetra-acetic acid (DOTA), 1 8,11-tetra-azacyclotetradecane-NN',N,N'-tetra-acetic (TETA),, 1 diaminocyclohexane tetra-acetic acid (DCTA), substituted substituted EDTA, or from a compound of the general formula -R-S ] Y wherein R is a branched or non-branched, optionally substituted hydrocarbyl radical,. A, Preparation of DTPA-Octreotide kit The DTPA-Octreotide kit formulated on basis of sodium acetate buffer with the final composition 3,89 mg sodium acetate 0,029 mg acetic acid 10 gg DTPA-Octreotide per vial is prepared as follows. To formulate the kit, 0,5 mg of DTPA-Octreotide is dissolved in 4 ml of acetic acid solution, and 5 ml of sodium acetate solution are added. In a similar way, starting from 2.5 mg DTPA-Octreotide was also prepared and a kit containing 50gg DTPA-Octreotide per vial. C, Labelling of DTPA-Octreotide kit with Tb Several kits of DTPA-Octreotide, prepared according to Example I containing 10 or 50 gg DTPA-Octreotide, are labelled by addition of 0.5 ml of Tb-161 solution obtained under B. The mixture is incubated for 30 min. at room temperature. ITLC as described above, Tb DTPA-Octreotide Rf ca 0 0.6 Free Tb-161 Rf ca 0,9 0 Hydrolysed Tb-161 Rf ca 0 0,1 HPLC: Column: gBondapakBC 18 10pn, 3.9 x. >92% 78.4% >93% challenge experiment with serum (bovine), added at 24 h 76.4% >95% Free Tb-161 was not detectable in any kit containing 50 gg DTPA-Octreotide.

h - HPLC 96.2%

HPLC identification positive, because UV spectrum and activity peaks of Tb-161 are found identical with those for In-III labelled DTPA-Octreotide used as control.

# EXAMPLE 11

Labelling of DTPA-Octreotide kit with Yb-175 and its use in combination with detectincr agent DTPA I-Tvr'-Octreotide A. Labellincf of DTPA-Octreotide kit with Yb Ca 1 mg of enriched (97.8%) 174-Yb2O2 is irradiated for 48 hours in a nuclear reactor with thermal.

Several kits containing 10 gg of DTPA-Octreotide prepared according to Example I are labelled by addition of I ml of the Yb-175 stock solution. The mixture is let to-incubate

Yb-175 Octreotide: LY at 3 ho ITLC Rf 0 06 91,2% at 24 h. ITLC Rf 0,5-06 91,7% B, Preiparation of DTPA 125-Tyr3-Octreotide.

DTPA-Tyr3-Octreotide of the formula DTPA- (D) Phe-Cys -Tyr\*- (D) Trp-Lys -Thr-Cys -Throl is prepared from Tyr3-Octreotide in a corresponding manner as described in Int, Pat, Appln, WO. . . Example 1, and further iodinated with 125I sodium iodide, dissolved in phosphate buffer in the presence of chloramine T. The molar ratio of DTPA-Tyr3-Octreotide; chloramine T: 125-I is 1:4,6:0,6 The reaction is terminated with 10% BSA solution. The labelled product of the above formula wherein Tyr] =.

To combine the therapeutical effect with the radioguided surgery are used both preparations; Yb Octreotide for the desired therapeutic effect and DTPA I-Tyr 3\_ Octreotide as the detectingu agent, Depending on the conditions, they can be used separately, in this case by administering Yb Octreotide first to cause partial or deep tumour necrosis, followed by administration of DTPA I-Tyr3-Octreotide to guide the tumours removal, or they can be administered simultaneously as a mixture in an appropriate ratio. Such a mixture. . .

# EXAMPLE III

Labelling of DTPA-Octreotide kit with Ho-166 and its use in combination with Octreotide labelled with Tb A. Labelling of DTPA-Octreotide kit with Ho 6-Ca 1 mg of natural (monoisotopic) 165-Ho2O3 is irradiated for 48 hours in nuclear reactor with a thermal. . . .

Several kits, containing lOgg of DTPA-Octreotide prepared according to Example I., are labelled by addition of 0.5 or 1 ml of Ho-166 stock solution. The mixture is let. . .

Labelled Ho Octreotide 9111% Free Ho-166 8,9% B. Pre-oaration of DTPA-Tb Octreotide as described in Example I., with kit containing 50 Ltq DTPA-Octreotide.

CLMEN. . . amide bond to an amino group of said peptide and being derived from ethylene diamine tetra-acetic acid (EDTA), diethylene triamine penta-acetic acid (DTPA), ethyleneglycol-0,01bis(2-aminoethyl)-N, N, N', N'-tetra-acetic acid (EGTA), N, N. bis (hydroxybenzyl) -

ethylenediamine-N, N'-diacetic acid (HBED), triethylene tetramine hexa-acetic acid (TTHA), 1,4,7,10-tetraazacyclododecane-N,N,N,Nf-tetra-acetic acid (DOTA),, 1 8,,11-tetra-azacyclotetradecane-N,N',N,N'-tetra-(TETA), 1,2-diaminocyclohexane tetra-acetic acid (DCTA), substituted substituted EDTA, or from a compound of the general formula wherein R is a branched or non-branched, optionally substituted hydrocarbyl radical, which may be.

ANSWER 8 OF 10 ACCESSION NUMBER:

COPYRIGHT 2006 Univentio on STN PCTFULL

1992004916 PCTFULL ED 20020513

PARTICULATE AGENTS TITLE (ENGLISH):

AGENTS SOUS FORME DE PARTICULES

TITLE (FRENCH): FILLER, Aaron, Gershon INVENTOR(S):

ST. GEORGE'S ENTERPRISES LIMITED; PATENT ASSIGNEE(S):

FILLER, Aaron, Gershon....

English LANGUAGE OF PUBL.: Patent DOCUMENT TYPE:

PATENT INFORMATION:

NUMBER	KIND	DATE
WO 9204916	A2 1	9920402

DESIGNATED STATES

W:

APPLICATION INFO .: PRIORITY INFO.:

		•										
AT	AU BE CA CH DE	DK	ES	FR GB	GR	IT	JP	LU	NL	ИО	SE	US
WO	1991-EP1780		Α	19910	913							
GB	1990-9020075.9			19900	914							
GB	1990-9023580.5			19901	030							
GB	1990-9027293.1			19901	217							
GB	1991-9100233.7			19910	107							
GB	1991-9100981.1			19910	116							
GB	1991-9102146.9			19910	131							
GB	1991-9110876.1			19910	520							
GB	1991-9116373.3			19910	730							
GB	1991-9117851.7			19910	819							
GB	1991-9118676.7			19910	830							

Paramagnetic contrast agents such as gadolinium-DETD DTPA act primarily by altering T, relaxation rates.

> its ease of use as a histocheiAcal marker. Other studies have demonstrated transport of a wide variety of substances including Vasoactive Intestinal Polypeptide (VIP),

cholecystokinin, substance P and somatostatin, neuropeptide-Y, and adriamycin. These types of tracers have sometimes been introduced by intravenous injection with subsequent uptake by neurons.

The use of a magnetic resonance small molecule contrast agent such as gadolinium-DTPA (diethylenetriaminepentaacetic acid) required the introduction of a very high concentration into the nerve and this amount was beyond what could be achieved,.

6) A wide variety of peptides and small proteins such as endorphins, vasoactive intestinal polypeptide, calcitonin gene-related peptide, cholecystokinin, substance P, somatostatin, and neuropeptide Y or the relevant portions of such peptides for the encouragement - 53

of neuronal uptake and transport.

Additional types of agents for imaging include paramagnetic metal chelates of polychelants (e.g. polylysine gadolinium-DTPA 40 which uses the macromolecularlparticulate aspects of uptake to introduce groups of paramagnetic nuclei (40 Gd atoms per molecule) (see EP-A-305320, EP-A-357622, EP-A-355097, EP-A-331616,...

L27 ANSWER 9 OF 10 PCTFULL COPYRIGHT 2006 Univentio on STN

ACCESSION NUMBER: 1992001469 PCTFULL ED 20020513

TITLE (ENGLISH): A COMPOSITION PROVIDING IMPROVED CLEARANCE OF BIOACTIVE

SUBSTANCES FROM THE BLOODSTREAM

TITLE (FRENCH): COMPOSITION ASSURANT UNE MEILLEURE ELIMINATION DE

SUBSTANCES BIOACTIVES CONTENUES DANS LE SYSTEME SANGUIN

INVENTOR(S): SELMER, Johan

PATENT ASSIGNEE(S): NOVO NORDISK A/S;

SELMER, Johan

LANGUAGE OF PUBL.: English

DOCUMENT TYPE: Patent

PATENT INFORMATION:

NUMBER KIND DATE
----WO 9201469 A1 19920206

DESIGNATED STATES

W:

AT AU BE CA CH CS DE DK ES FI FR GB GR HU IT JP KR LU

NL NO PL SE SU US

APPLICATION INFO.: PRIORITY INFO.:

WO 1991-DK215 A 19910724 DK 1990-1762/90 19900724

DETD . . . radioimaging leukocytes by injecting a conjugate of an antibody reactive with a leukocyt6 surface molecule and a radioisotope chelated with an EDTA or DTPA derivative followed by the injection of an antibody against the conjugate in order to clear the conjugate/antibody complex through the reticuloendothelial system. . .

hormone,,; follicle-Stimulating hormone,, luteinising hormoner adrenocorticotropic hormone, parathyroidea hormone, prolactin, lipotropin J, cholecystokinin, calcitonin, secretin, atrialnatriuretic factor, endothelin, vasoactive intestinal polypeptider transferrin, tachykinin Intercellular adhesion factors intercellular adhesion molecule 1, endothelial leukocyte. . .

=> octapeptide
OCTAPEPTIDE IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

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=> s octapeptide
         1500 OCTAPEPTIDE
          238 OCTAPEPTIDES
         1631 OCTAPEPTIDE
L28
                 (OCTAPEPTIDE OR OCTAPEPTIDES)
=> s 128 and (DTPA or DOTA)
         5576 DTPA
           12 DTPAS
          5579 DTPA
                 (DTPA OR DTPAS)
         1767 DOTA
            5 DOTAS
         1768 DOTA
                 (DOTA OR DOTAS)
            86 L28 AND (DTPA OR DOTA)
L29
=> s 129 not py>1996
        935225 PY>1996
           15 L29 NOT PY>1996
L30
=> s 130 and CCK
         2003 CCK
            36 CCKS
          2007 CCK
                 (CCK OR CCKS)
            1 L30 AND CCK
L31
=> d ibib
                        PCTFULL COPYRIGHT 2006 Univentio on STN
      ANSWER 1 OF 1
                        1995005842 PCTFULL ED 20020514
ACCESSION NUMBER:
                        METHOD AND DEVICE FOR TREATING GASTROINTESTINAL MUSCLE
TITLE (ENGLISH):
                        DISORDERS AND OTHER SMOOTH MUSCLE DYSFUNCTION
                        PROCEDE ET DISPOSITIF POUR TRAITER LES TROUBLES
TITLE (FRENCH):
                        MUSCULAIRES GASTRO-INTESTINAUX ET AUTRES
                        DYSFONCTIONNEMENTS DES MUSCLES LISSES
                        PASRICHA, Pankaj, J.;
INVENTOR(S):
                        KALLOO, Anthony, N.
                        THE JOHNS HOPKINS UNIVERSITY
PATENT ASSIGNEE(S):
DOCUMENT TYPE:
                        Patent
PATENT INFORMATION:
                                          KIND
                                                    DATE
                        NUMBER
                        ______
                                            Al 19950302
                        WO 9505842
DESIGNATED STATES
                        CA JP AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE
      W:
                        WO 1994-US9759 A 19940823:
APPLICATION INFO .:
                                                19930826
                        US 1993-112,088
PRIORITY INFO.:
=> d kwic
                                   COPYRIGHT 2006 Univentio on STN
L31
      ANSWER 1 OF 1
                         PCTFULL
      Figs. 3A and B show the effect of intrasphincteric injection of BoTx on
DETD
      LES response to cholecystokinin octapeptide (CCK)
      The response of the LES to the IV administration of edrophonium
       (Tensilon; ICN Pharmaceuticals Inc., Costa Mesa, CA) and cholecystokinin
         octapeptide (CCK-8) (Kinevac; ER Squibb amp; Sons,
       Princeton, NJ) in three
       additional piglets was also measured. LES pressures, measured by a
```

DENTSLEEVE, were recorded in response to IV edrophonium (5 mg). After a

SUBSTITUTE SHEET (RULE 26)

```
washout period of 10 minutes, CCK (5 µ g IV) was then
      administered.
      Subsequently, BoTx was injected into the LES, as described above, and
      the
      experiment was. . .
      Intrasphincteric BoTx also altered the response of the LES to
       (Figure 3). In untreated piglets, CCK did not cause any
      significant change in
      LES pressure. However, after intrasphincteric BoTx injection, a
      significant
      increase in LES pressure was seen in response to CCK. It
      should be noted that
      despite what was felt to be an adequate washout period (10 minutes) in
      between
      injections, basal. . .
      retention studies
      After an overnight fast, patients were asked to ingest a corn-flake meal
      with milk containing 0.531 mci 99 aiTc DTPA...Subsequently;
      serial dynamic
      images were obtained with the subject sitting erect in front of a gamma
      camera.
      Retention was expressed.
=> d his
     (FILE 'HOME' ENTERED AT 13:35:48 ON 07 DEC 2006)
     FILE 'REGISTRY' ENTERED AT 13:36:14 ON 07 DEC 2006
            136 S DY'NLE'GW'NLE'DF/SQSP
            424 S DYMGWMDF/SQSP
     FILE 'CAPLUS' ENTERED AT 13:39:00 ON 07 DEC 2006
             84 S L1
             0 S DPTA AND L3
              5 S DOTA AND L3
       . 134722 S CHELAT?
             12 S L6 AND L3
              0 S L7 NOT PY>1997
              1 S L7 NOT PY>1998
           4485 S L2
             49 S L10 AND L6
             20 S L11 NOT PY>1997
             20 S L11 NOT PY>1996
          14458 S METAL CHELAT?
              3 S L14 AND L10
              4 S L10 AND (DPTA OR DOTA)
              9 S L10 AND DTPA
     FILE 'DISSABS' ENTERED AT 13:46:43 ON 07 DEC 2006
            323 S CHOLECYSTOKININ OR (CCK-8 OR CCK8 OR (CCK () 8)).
            360 S DTPA OR DOTA
              2 S L19 AND L18
            497 S METAL CHELAT?
              0 S L21 AND L18
     FILE 'PCTFULL' ENTERED AT 13:50:53 ON 07 DEC 2006
           2006 S CHOLECYSTOKININ OR (CCK-8 OR CCK8 OR (CCK () 8))
           2224 S DPTA OR DOTA
           6121 S DTPA OR DOTA
           110 S L25 AND L23
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L1

L2

L3

L4

L5

L6 L7

L8

L9

L10

L11

L12 L13

L14

L15

L16

L17

L18

L19

L20 L21

L22

L23

L24

L25

L26

L27

10 S L26 NOT PY>1996

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1631 S OCTAPEPTIDE
             86 S L28 AND (DTPA OR DOTA)
L29
             15 S L29 NOT PY>1996
L30
              1 S L30 AND CCK
L31
=> s 123 and chelat?
         44321 CHELAT?
           591 L23 AND CHELAT?
L32
=> s 132 and (radio? or imag?)
        190519 RADIO?
        202203 IMAG?
           495 L32 AND (RADIO? OR IMAG?)
L33
=> s 133 not py>1996
        935225 PY>1996
            34 L33 NOT PY>1996
L34
=> d his
     (FILE 'HOME' ENTERED AT 13:35:48 ON 07-DEG-2006)
     FILE 'REGISTRY' ENTERED AT 13:36:14 ON 07 DEC 2006
            136 S DY'NLE'GW'NLE'DF/SQSP
L1
            424 S DYMGWMDF/SQSP
L2
     FILE 'CAPLUS' ENTERED AT 13:39:00 ON 07 DEC 2006
             84 S L1
L3
              0 S DPTA AND L3
L4
              5 S DOTA AND L3
L5
L6
         134722 S CHELAT?
             12 S L6 AND L3
L7
              0 S L7 NOT PY>1997
L8
              1 S L7 NOT PY>1998
L9
           4485 S L2
L10
             49 S L10 AND L6
L11
             20 S L11 NOT PY>1997
L12
             20 S L11 NOT PY>1996
L13
          14458 S METAL CHELAT?
L14
              3 S L14 AND L10
L15
              4 S L10 AND (DPTA OR DOTA)
L16
              9 S L10 AND DTPA
L17
     FILE 'DISSABS' ENTERED AT 13:46:43 ON 07 DEC 2006
            323 S CHOLECYSTOKININ OR (CCK-8 OR CCK8 OR (CCK () 8))
L18
            360 S DTPA OR DOTA
L19
              2 S L19 AND L18
L20
            497 S METAL CHELAT?
L21
             0 S L21 AND L18
L22
     FILE 'PCTFULL' ENTERED AT 13:50:53 ON 07 DEC 2006
           2006 S CHOLECYSTOKININ'OR (CCK-8 OR CCK8 OR (CCK () 8))
L23
           2224 S DPTA OR DOTA
L24
L25
           6121 S DTPA OR DOTA
            110 S L25 AND L23
L26
             10 S L26 NOT PY>1996
L27
L28
           1631 S OCTAPEPTIDE
             86 S L28 AND (DTPA OR DOTA)
L29
             15 S L29 NOT PY>1996
L30
              1 S L30 AND CCK
L31
            591 S L23 AND CHELAT?
L32
            495 S L32 AND (RADIO? OR IMAG?)
L33
             34 S L33 NOT PY>1996
L34
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=> d ibib 1-8

PCTFULL COPYRIGHT 2006 Univentio on STN ANSWER 1 OF 8

1996039161 PCTFULL ED 20020514 ACCESSION NUMBER:

MULTI-TYROSINATED SOMATOSTATIN ANALOGS TITLE (ENGLISH):

ANALOGUES DE LA SOMATOSTATINE CONTENANT PLUSIEURS DE TITLE (FRENCH):

TYROSINES

COY, David, H.; INVENTOR(S):

WOLTERING, Eugene, A.; O'DORISIO, M., Sue; O'DORISIO, Thomas, M.;

MURPHY, William, A.

THE ADMINISTRATORS OF THE TULANE EDUCATIONAL FUND ; PATENT ASSIGNEE(S):

THE OHIO STATE UNIVERSITY RESEARCH FOUNDATION; THE LOUISIANA STATE UNIVERSITY MEDICAL CENTER

FOUNDATION;

CHILDREN'S HOSPITAL, INC.

LANGUAGE OF PUBL.: DOCUMENT TYPE:

English Patent

PATENT INFORMATION:

KIND DATE NUMBER -----A1 19961212 WO 9639161

DESIGNATED STATES

W:

AL AM AT AU AZ BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU IL IS JP KE KG KP KR KZ LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG UZ VN KE LS MW SD SZ UG AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL

PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG

APPLICATION INFO.: PRIORITY INFO.:

WO 1996-US8437 US 1995-8/462,223 A 19960603 19950605

L35 ANSWER 2 OF 8 ACCESSION NUMBER:

TITLE (ENGLISH):

TITLE (FRENCH):

PCTFULL COPYRIGHT 2006 Univentio on STN

1994023724 PCTFULL ED 20020513 MEMBRANE-PERMEANT SECOND MESSENGERS

MESSAGERS SECONDAIRES S'INFILTRANT DANS LA MEMBRANE

CELLULAIRE

INVENTOR(S):

TSIEN, Roger, Y.; SCHULTZ, Carsten

PATENT ASSIGNEE(S):

LANGUAGE OF PUBL.: DOCUMENT TYPE:

PATENT INFORMATION:

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA

English Patent

NUMBER

KIND DATE \_\_\_\_\_

WO 9423724

Al 19941027

DESIGNATED STATES

W:

AU BB BG BR BY CA CN CZ FI HU JP KP KR KZ LK LV MG MN MW NO NZ PL RO RU SD SI SK UA UZ VN AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN

ML MR NE SN TD TG

APPLICATION INFO .: PRIORITY INFO.:

WO 1994-US3889 US 1993-45,585

A 19940408 19930409

ANSWER 3 OF 8

ACCESSION NUMBER: TITLE (ENGLISH): TITLE (FRENCH):

PCTFULL COPYRIGHT 2006 Univentio on STN

1994022444 PCTFULL ED 20020513

TRICYCLIC COMPOUNDS FOR INHIBITING PLATELET AGGREGATION COMPOSES TRICYCLIQUES UTILISES POUR INHIBER

L'AGREGATION PLAQUETTAIRE

INVENTOR(S):

CALLAHAN, James, Francis;

HUFFMAN, William, F.

PATENT ASSIGNEE(S):

SMITHKLINE BEECHAM CORPORATION;

CALLAHAN, James, Francis;

HUFFMAN, William, F.

LANGUAGE OF PUBL .: DOCUMENT TYPE:

English Patent

PATENT INFORMATION:

KIND DATE NUMBER -----

WO 9422444

A1 19941013

DESIGNATED STATES

W:

JP US AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE APPLICATION INFO.: WO 1994-US3383 A 19940329

PRIORITY INFO.:

US 1993-8/038,382 19930329

ANSWER 4 OF 8 L35 ACCESSION NUMBER:

PCTFULL COPYRIGHT 2006 Univentio on STN 1993008842 PCTFULL ED 20020513 HEMOGLOBINS AS DRUG DELIVERY AGENTS

TITLE (ENGLISH): TITLE (FRENCH):

HEMOGLOBINES UTILISEES COMME AGENTS ADMINISTRATEURS DE

**MEDICAMENTS** 

INVENTOR(S):

ANDERSON, David, C.; MATHEWS, Antony, James

PATENT ASSIGNEE(S):

SOMATOGEN, INC.; ANDERSON, David, C.; MATHEWS, Antony, James

LANGUAGE OF PUBL.:

English Patent

DOCUMENT TYPE: PATENT INFORMATION:

NUMBER

KIND DATE -----

WO 9308842

Al 19930513

DESIGNATED STATES

W:

AT AU BB BG BR CA CH CS DE DK ES FI GB HU JP KP KR LK LU MG MN MW NL NO PL RO RU SD SE UA US AT BE CH DE DK ES FR GB GR IE IT LU MC NL SE BF BJ CF CG CI CM GA GN

ML MR SN TD TG

APPLICATION INFO .: PRIORITY INFO.:

WO 1992-US9713 US 1991-789,177 US 1991-789,179

A 19921106 19911108 19911108

ANSWER 5 OF 8 L35 ACCESSION NUMBER:

PCTFULL COPYRIGHT 2006 Univentio on STN 1993000095 PCTFULL ED 20020513 BICYCLIC FIBRINOGEN ANTAGONISTS

TITLE (ENGLISH): TITLE (FRENCH):

ANTAGONISTES BICYCLIQUES DE FIBRINOGENE

INVENTOR(S):

BONDINELL, William, Edward; CALLAHAN, James, Francis; HUFFMAN, William, Francis; KEENAN, Richard, McCulloch;

KU, Thomas, Wen-Fu;

NEWLANDER, Kenneth, Allen-

PATENT ASSIGNEE(S):

SMITHKLINE BEECHAM CORPORATION; BONDINELL, William, Edward; CALLAHAN, James, Francis; HUFFMAN, William, Francis; KEENAN, Richard, McCulloch;

KU, Thomas, Wen-Fu;

NEWLANDER, Kenneth, Allen

LANGUAGE OF PUBL.: DOCUMENT TYPE:

English Patent

PATENT INFORMATION:

KIND DATE NUMBER

A2 19930107

DESIGNATED STATES

AU CA JP KR US AT BE CH DE DK ES FR GB GR IT LU MC NL

SE

APPLICATION INFO .:

WO 1992-US5463 A 19920626

WO 9300095

US 1991-723,009 PRIORITY INFO.: 19910628 PCTFULL COPYRIGHT 2006 Univentio on STN ANSWER 6 OF 8 1991019733 PCTFULL ED 20020513 ACCESSION NUMBER: DERIVATIVES OF TETRAPEPTIDES AS CCK AGONISTS TITLE (ENGLISH): DERIVES DE TETRAPEPTIDES EN TANT QU'AGONISTES DE TITLE (FRENCH): CHOLECYSTOKININE SHIOSAKI, Kazumi; INVENTOR(S): NADZAN, Alex, M.; KOPECKA, Hana; SHUE, Youe-Kona; HOLLADAY, Mark, W.; LIN, Chun, W.; NELLANS, Hugh, N. ABBOTT LABORATORIES PATENT ASSIGNEE(S): LANGUAGE OF PUBL.: English DOCUMENT TYPE: Patent PATENT INFORMATION: KIND DATE NUMBER \_\_\_\_\_\_ A1 19911226 WO 9119733 DESIGNATED STATES AT BE CA CH DE DK ES FR GB GR IT JP LU NL SE W : WO 1991-US4458 A 19910620 APPLICATION INFO .: 19900620 US 1990-541,230 PRIORITY INFO.: 19910614 US 1991-713,010 PCTFULL COPYRIGHT 2006 Univentio on STN ANSWER 7 OF 8 L35 1990006937 PCTFULL ED 20020513 ACCESSION NUMBER: DERIVATIVES OF TETRAPEPTIDES AS CCK AGONISTS TITLE (ENGLISH): DERIVES DE TETRAPEPTIDES UTILISES COMME AGENTS TITLE (FRENCH): REPRODUISANT L'ACTIVITE DE LA CCK SHIOSAKI, Kazumi; INVENTOR(S): NADZAN, Alex, M.; KOPECKA, Hana; SHUE, Youe-Kong ABBOTT LABORATORIES; PATENT ASSIGNEE(S): SHIOSAKI, Kazumi; NADZAN, Alex, M.; KOPECKA, Hana; SHUE, Youe-Kong

LANGUAGE OF PUBL .: English

DOCUMENT TYPE: Patent PATENT INFORMATION:

KIND DATE NUMBER \_\_\_\_\_\_ A1 19900628 WO 9006937

DESIGNATED STATES

W: APPLICATION INFO .: PRIORITY INFO.:

TITLE (FRENCH):

INVENTOR(S):

BE CH DE ES FR GB IT JP NL SE US WO 1989-US5673 A 19891218 19881221 US 1988-287,955

ANSWER 8 OF 8 ACCESSION NUMBER: TITLE (ENGLISH):

PCTFULL COPYRIGHT 2006 Univentio on STN 1990006128 PCTFULL ED 20020513

METHODS AND COMPOSITIONS FOR INHIBITING PLATELET

AGGREGATION METHODES ET COMPOSITIONS POUR INHIBER L'AGREGATION DES

PLAOUETTES

MARAGANORE, John, M.; JAKUBOWSKI, Joseph, A.

BIOGEN, INC.; PATENT ASSIGNEE(S):

TRUSTEES OF BOSTON UNIVERSITY

LANGUAGE OF PUBL.: English DOCUMENT TYPE: PATENT INFORMATION:

Patent

NUMBER KIND DATE WO 9006128 A1 19900614 DESIGNATED STATES DK FI HU JP KR NO WO 1989-US849 APPLICATION INFO .: A 19890302 US 1988-280,618 19881205 PRIORITY INFO.: 2003 CCK 36 CCKS 2007 CCK (CCK OR CCKS) 5 L35 AND CCK ANSWER 1 OF 5 PCTFULL COPYRIGHT 2006 Univentio on STN 1996039161 PCTFULL ED 20020514 ACCESSION NUMBER: MULTI-TYROSINATED SOMATOSTATIN ANALOGS TITLE (ENGLISH): ANALOGUES DE LA SOMATOSTATINE CONTENANT PLUSIEURS DE TYROSINES COY, David, H.; WOLTERING, Eugene, A.; O'DORISIO, M., Sue; O'DORISIO, Thomas, M.; MURPHY, William, A. THE ADMINISTRATORS OF THE TULANE EDUCATIONAL FUND ; PATENT ASSIGNEE(S): THE OHIO STATE UNIVERSITY RESEARCH FOUNDATION; THE LOUISIANA STATE UNIVERSITY MEDICAL CENTER FOUNDATION; CHILDREN'S HOSPITAL, INC. English LANGUAGE OF PUBL.: Patent PATENT INFORMATION: NUMBER KIND DATE \_\_\_\_\_\_ WO 9639161 A1 19961212 DESIGNATED STATES AL AM AT AU AZ BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU IL IS JP KE KG KP KR KZ LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG UZ VN KE LS MW SD SZ UG AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG WO 1996-US8437 A 19960603 APPLICATION INFO .: US 1995-8/462,223 . 19950605 \* \* PRIORITY INFO.: PCTFULL COPYRIGHT 2006 Univentio on STN ANSWER 2 OF 5 1994023724 PCTFULL ED 20020513 ACCESSION NUMBER: MEMBRANE-PERMEANT SECOND MESSENGERS TITLE (ENGLISH): MESSAGERS SECONDAIRES S'INFILTRANT DANS LA MEMBRANE CELLULAIRE TSIEN, Roger, Y.; SCHULTZ, Carsten THE REGENTS OF THE UNIVERSITY OF CALIFORNIA PATENT ASSIGNEE(S): English LANGUAGE OF PUBL.:

DESIGNATED STATES W:

Patent

NUMBER

WO 9423724

\_\_\_\_\_

TITLE (FRENCH):

INVENTOR(S):

DOCUMENT TYPE: PATENT INFORMATION:

W:

=> s 135 and cck

=> d ibib 1-5

TITLE (FRENCH):

DOCUMENT TYPE:

W:

INVENTOR(S):

L36

AU BB BG BR BY CA CN CZ FI HU JP KP KR KZ LK LV MG MN

KIND DATE

A1 19941027

MW NO NZ PL RO RU SD SI SK UA UZ VN AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG WO 1994-US3889 A 19940408 US 1993-45,585 19930409 PCTFULL COPYRIGHT 2006 Univentio on STN 1993008842 PCTFULL ED 20020513 HEMOGLOBINS AS DRUG DELIVERY AGENTS HEMOGLOBINES UTILISEES COMME AGENTS ADMINISTRATEURS DE **MEDICAMENTS** ANDERSON, David, C.; MATHEWS, Antony, James SOMATOGEN, INC.; ANDERSON, David, C.; MATHEWS, Antony, James English Patent NUMBER KIND DATE \_\_\_\_\_\_ WO 9308842 A1 19930513 AT AU BB BG BR CA CH CS DE DK ES FI GB HU JP KP KR LK LU MG MN MW NL NO PL RO RU SD SE UA US AT BE CH DE DK ES FR GB GR IE IT LU MC NL SE BF BJ CF CG CI CM GA GN ML MR SN TD TG WO 1992-US9713 A 19921106 19911108 US 1991-789,177 19911108 US 1991-789,179 PCTFULL COPYRIGHT 2006 Univentio on STN 1991019733 PCTFULL ED 20020513 DERIVATIVES OF TETRAPEPTIDES AS CCK AGONISTS DERIVES DE TETRAPEPTIDES EN TANT QU'AGONISTES DE CHOLECYSTOKININE SHIOSAKI, Kazumi; NADZAN, Alex, M.; KOPECKA, Hana; SHUE, Youe-Kona; HOLLADAY, Mark, W ..; LIN, Chun, W.; NELLANS, Hugh, N. ABBOTT LABORATORIES English Patent DATE KIND NUMBER \_\_\_\_\_\_ WO 9119733 A1 19911226 AT BE CA CH DE DK ES FR GB GR IT JP LU NL SE WO 1991-US4458 A 19910620 19900620 US 1990-541,230 US 1991-713,010 19910614 PCTFULL COPYRIGHT 2006 Univentio on STN 1990006937 PCTFULL ED 20020513 DERIVATIVES OF TETRAPEPTIDES AS CCK AGONISTS DERIVES DE TETRAPEPTIDES UTILISES COMME AGENTS REPRODUISANT L'ACTIVITE DE LA CCK SHIOSAKI, Kazumi;

APPLICATION INFO .:

TITLE (ENGLISH):

PATENT ASSIGNEE(S):

LANGUAGE OF PUBL .:

DESIGNATED STATES

APPLICATION INFO.:

ACCESSION NUMBER:

PATENT ASSIGNEE(S):

LANGUAGE OF PUBL.: DOCUMENT TYPE:

PATENT INFORMATION:

DESIGNATED STATES

APPLICATION INFO .:

ACCESSION NUMBER:

TITLE (ENGLISH):

TITLE (FRENCH):

INVENTOR(S):

ANSWER 5 OF 5

NADZAN, Alex, M.; KOPECKA, Hana; SHUE, Youe-Kong

W:

PRIORITY INFO.:

L36

TITLE (ENGLISH):

TITLE (FRENCH):

INVENTOR(S):

ANSWER 4 OF 5

PRIORITY INFO.:

L36

W:

DOCUMENT TYPE:
PATENT INFORMATION:

TITLE (FRENCH):

INVENTOR(S):

ACCESSION NUMBER:

ANSWER 3 OF 5

PRIORITY INFO.:

ABBOTT LABORATORIES; PATENT ASSIGNEE(S):

SHIOSAKI, Kazumi; NADZAN, Alex, M.; KOPECKA, Hana; SHUE, Youe-Kong

LANGUAGE OF PUBL.: DOCUMENT TYPE:

English Patent

PATENT INFORMATION:

NUMBER KIND DATE \_\_\_\_\_ WO 9006937 A1 19900628

DESIGNATED STATES

APPLICATION INFO .: PRIORITY INFO.:

W:

BE CH DE ES FR GB IT JP NL SE US WO 1989-US5673 A 19891218 US 1988-287,955 19881221

=> d ibib kwic 5

ANSWER 5 OF 5

PCTFULL COPYRIGHT 2006 Univentio on STN

1990006937 PCTFULL ED 20020513 ACCESSION NUMBER:

TITLE (ENGLISH): TITLE (FRENCH):

DERIVATIVES OF TETRAPEPTIDES AS CCK AGONISTS DERIVES DE TETRAPEPTIDES UTILISES COMME AGENTS

REPRODUISANT L'ACTIVITE DE LA CCK

INVENTOR(S):

SHIOSAKI, Kazumi; NADZAN, Alex, M.; KOPECKA, Hana; SHUE, Youe-Kong

PATENT ASSIGNEE(S):

ABBOTT LABORATORIES; SHIOSAKI, Kazumi; NADZAN, Alex, M.; KOPECKA, Hana; SHUE, Youe-Kong

LANGUAGE OF PUBL.:

English

DOCUMENT TYPE:

Patent

PATENT INFORMATION:

NUMBER KIND DATE \_\_\_\_\_\_ WO 9006937 A1 19900628

DESIGNATED STATES

W: APPLICATION INFO .:

PRIORITY INFO.:

BE CH DE ES FR GB IT JP NL SE US WO 1989-US5673 A 19891218 19881221 US 1988-287,955

DERIVATIVES OF TETRAPEPTIDES AS CCK AGONISTS TIEN

DERIVES DE TETRAPEPTIDES UTILISES COMME AGENTS REPRODUISANT L'ACTIVITE TIFR

Tetrapeptide analogs are disclosed which possess CCK agonist ABEN activity.

Les analogues de tetrapeptides decrits possedent une activite similaire ABFR a la cholecystokinine (CCK).

DERTVATIVES OF-TETRAPEPTIDES AS CCK AGONISTS DETD This is a continuation-in-part of U.S. Patent Application Serial No. 287,955, filed December 21, 1988.

Technical Field

The present invention relates to novel organic compounds and compositions which mimic the effects of cholecystokinin, caerulein and gastrin, processes for making such compounds, synthetic intermediates employed in these processes and a method for treating gastrointestinal disorders, central nervous. .

Backaround of thp Tnvention

Cholecystokinin (CCK) is a 39 amino acid polypeptide hormone. CCK and a 33 amino acid fragment of CCK (CCK 33)

were first isolated from hog intestine (Mutt and jorpes, Biochem. ]L, 12, Ij 628 (1981)). Recently the CCK 33 fragment has been found in the brain, where it appears to be the precursor of two smaller fragments, an octapeptide CC]K8 and a tetrapeptide CCK 4 (Dockray, Nature 264 402 (1979)).

Existence of these fragments in the cortex of the brain suggests that CCK may be an important neuromodulator of memory, learning and control of the primary sensory and motor functions. CCK and it-s fragments are believed to play an important role in appetite regulation and satiety (Della-Ferat Science 206 471 (1979); Saito et. . . Eating and it-s Disorders, eds.,

Raven Pressr New Yorkf 67 (1984)). Recently,, patients with bulimia were shown to have lower than normal CCK levels in their plasma-(Geracioti, et al., New England Journal of Medici=, 3\_12 683 (1988)). An additional role for CCK in the periphery is to regulate the release of insulin., CCK has been shown to increase the levels of insulin when administered to mammals (Rushakoff, et al., J. Clin. Endocrinol, Metab. 65 395. . .

C-terminal fragments of CCK have recently been reported to function as CCK receptor antagonists (Jensen et al Biochem. Biophys. Acta, 757, 250 (1983); Spanarkel, J. Biol. Chem. ZUt 6746 (1983)). Japanese patent application 45/10506 to. . .

In contrast, the present invention relates to tetrapeptide analogs-which function as agonists of CCK activity, CCK agonists are useful in the treatment and prevention of CCK-related disorders of the gastrointestinal, appetite (obesity and bulimia, among others) and insulin regulatory systems of animals, especially man. CCK agonists are also useful as central nervous system suppressants which can exhibit antipsychotic, neuroleptic, anxiolytic, and anti-convulsant effects, among other effects on. . .

the Drawinas
Figure I is a plot comparing the mean level of liquid
food intake (mls) for rats after chronic administration of
vehicle, CCK-8 (10 nmol/kg), or the compound of
Example
180 (1 nmol/kg or 10 nm/kg).

Figure 2 is a plot comparing the mean change in body weight (grams) for rats after chronic administration of vehicle, CCK-8 (10 nmol/kg), or the compound of Example
180 (1 nmol/kg or 10 nm/kg),
Summary of the Invention
In accordance with the present invention there are cholecystokinin agonists of the formula.

IL 1981, p 617) wherein the Boc or Cbz protected amino acid is treated with a base in the presence of a chelating agent such as a crown ether and then quenched with methyl iodide.

found: C 61.11r H 6.50F. N 10.89, The compounds of formula I are CCKagonists which are useful in the treatment and prevention of CCK-related disorders of the gastrointestinal, central nervous, and appetite and insulin regulatory systems of animals and humans. As CCK agonists, they are useful in the treatment and prevention of neuroleptic disorders, tardive dyskinesiat disorders of memory and cognition, Parkinson's disease, Huntington's chorea, . . .

The ability of the compounds of the invention to interact with CCK receptors and to act as CCK agonists can be demonstrated ja vitro using the following protocols.

CCK8 [Asp-Tyr(SO 3H)-Met-Gly-Trp-Met-Asp-Phe-NH2], bestatin and phosphoramidon were purchased from Peptide International (Louisville, KY), EGTAr HEPES and BSA were purchased from Sigma Chemical Co.

(St. Louis,, MO), 125 11 - Bolton-Hunter (BH-CCK (specific activity, 2200 Ci/mmol) was obtained from New England Nuclear (Boston, MA). Male guinea pigs, 250 to 32S g, were obtained from Scientific Small Animal Laboratory and Farm (Arlington Heights, IL). Collagenase, code CLSPA was purchased from Worthington (Frehold, New Jersey) Protocol For Radioligand Binding Experiments in Guinea Pig Cerebral Cortical and Pancreatic Membrane PreT) arations
Cortical and pancreatic membranes were prepared as described (Lin and Miller; J, Pharmacol,. . .

Incubation Conditions 1 125 I]Bolton-Hu-nter CCK and test compounds were diluted with HEPES-EGTA-salt buffer (see above) containing 0.5% bovine serum albumin (BSA). To 1 mL Skatron polystyrene tubes were added 25 uL of test compounds, 25 uL of [ 125 IJBH-CCK and 200 uL of membrane suspension. The final BSA concentration was 0.1%. The cortical tissues were incubated at 300C for 150 min. . . 37'C for 150 min. Incubations were terminated by filtration using Skatron Cell Harvester and SS32 microfiber filter mats. The specific binding of I IIBH-CCK 8. defined as the difference between binding in the absence and presence of 1 uM CCK., was 85-90% of total binding in cortex and 90-95% in pancreas. IC 50 s were determined from the Hill analysis. The results. . .

Table 1
125 laaQ7'Q'L125
Compound of I-BH-CCK 8 I-BH-CCK8
Example Pancreas Cortex
30 270
12 680
10 732
26 238
71 1480
26 1800
32 114
45 35 4700
4 7 50 4 000
4 9 4 1 815

The results indicate that compounds of the invention possess selective affinity for the pancreatic CCK receptors.

Amylase Assay

After the 30 min incubation time, the acini was resuspended in 100 volumes of KRH-BSA buffer, containing 3 uM phosphoramidon and 100 uM bestatin. While stirring, 400 uL of acini were added to 1.5 mL microcentrifuge tubes containing 50 uL of CCK., buffer, or test compounds. The final assay volume was 500 uL. Tubes were vortexed and placed in a 37'C waterbathf under 100%. . .

TABLE 2
Cgmipound of Example Amylase rele=r.---M.4aIIL
5
3
40
80
24
157 ill
180 0.74
The results indicate that compounds of the invention are CCK agonists.

Measurement of PlasMa Insulin in Mice Following Treatment With CCK or a CCK Aaonist Male mice, 20-30 g. were used in all experiments. The animals were fed with laboratory lab chow and water ad libitum. CCK8 or the CCK agonist compound of this invention was injected into the tail vein. Two minutes later, the animals were sacrificed and the blood was collected. . . 10,000 x g for 2 minutes. The insulin levels were determined in the supernatant, i,e,, plasma, by RIA using kits obtained from Radioassay Systems Laboratory (Carson, CA.) or Novo Biolabs (Danbury, CT.).

CCK8 3.0 nmol/mouse 106 10.0 nmol/mouse 157 30.0 nmol/mouse 180 1.0 nmol/mouse The results of these tests indicate that compounds of the invention suppress locomotor activity. . food intake. Five minutes prior to their one hour free feeding (Purina Rat Chow), the animals were injected (i,p,) with either vehicle, CCK the compound of Example 106. The amount of food consumed was measured after subtraction of spillage. The results of this test are. AdMinistration of CCK Agonists Compound Dose Mean Food Intake vehicle ... 9,40 grams C-CK 20 ug/kg 6.56 grams Example 106 1,0 mg/kg 3.49 grams Example 106 3.0 mg/kg. When a compound of formula I is used as an agonist of CCK or gastrin in a human subject, the total daily dose administered in single or divided doses may be in amounts, for example,. CLMEN 5 A method for mimicking the effects of CCK on CCK receptors comprising administering to a host in need of such treatment a therapeutically effective amount of a compound of Claim 1, 7 A CCK agonist composition comprising a pharmaceutical carrier and a therapeutically effective amount of a compound of Claim 1. => s CCK and (DOTA or DTPA) 2003 CCK 36 CCKS 2007 CCK (CCK OR CCKS) 1767 DOTA 5 DOTAS 1768 DOTA (DOTA OR DOTAS) 5576 DTPA 12 DTPAS 5579 DTPA (DTPA OR DTPAS) 79 CCK AND (DOTA OR DTPA) => s 137 not py>1996935225 PY>1996 5 L37 NOT PY>1996 => d ibib kwic 1-5 COPYRIGHT 2006 Univentio on STN ANSWER 1 OF 5 PCTFULL 1996005861 PCTFULL ED 20020514 ACCESSION NUMBER: COMPOSITIONS AND METHODS FOR THE TREATMENT OF BODY TITLE (ENGLISH): WEIGHT DISORDERS, INCLUDING OBESITY COMPOSITIONS ET PROCEDES DE TRAITEMENT DES TROUBLES TITLE (FRENCH): INHERENTS AU POIDS CORPOREL, DONT L'OBESITE TARTAGLIA, Louis, A. INVENTOR(S):

L37

L38

L38

PATENT ASSIGNEE(S):

MILLENIUM PHARMACEUTICALS, INC.

LANGUAGE OF PUBL.: DOCUMENT TYPE:

English Patent

PATENT INFORMATION:

NUMBER KIND DATE \_\_\_\_\_ WO 9605861 A1 19960229

DESIGNATED STATES

W:

AU CA JP AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT

SE

APPLICATION INFO .: PRIORITY INFO.:

A 19950823 WO 1995-US10918 19940823 US 1994-294,522 US 1995-470,868 19950606

. . These include but are not limited to the intracellular DETD domain of receptors for such hormones as neuropeptide Y, galanin, interostatin, insulin, and CCK. Total genomic or cDNA sequences are fused to the DNA encoding an activation domain. This library and a plasmid encoding a hybrid of. . .

Eu, or others of the lanthanide series. These metals can be attached to the antibody using such metal chelating groups as diethylenetriaminepentacetic acid (DTPA) or ethylenediaminetetraacetic acid (EDTA).

ANSWER 2 OF 5 1.38

PCTFULL COPYRIGHT 2006 Univentio on STN

ACCESSION NUMBER:

1995024426 PCTFULL ED 20020514

A NOVEL EXPRESSION-CLONING METHOD FOR IDENTIFYING TITLE (ENGLISH): TARGET PROTEINS FOR EUKARYOTIC TYROSINE KINASES AND

NOVEL TARGET PROTEINS

TITLE (FRENCH):

NOUVEAU PROCEDE D'EXPRESSION-CLONAGE UTILISE POUR

IDENTIFIER DES PROTEINES A CIBLES DES TIROSINE-KINASES

EUKARYOTES, ET NOUVELLES PROTEINES CIBLES

INVENTOR(S):

SCHLESSINGER, Joseph; SKOLNIK, Edward, Y.; MARGOLIS, Benjamin, L. NEW YORK UNIVERSITY

PATENT ASSIGNEE(S):

English

LANGUAGE OF PUBL.: DOCUMENT TYPE:

Patent

PATENT INFORMATION:

NUMBER KIND DATE \_\_\_\_\_\_ A1 19950914 WO 9524426

DESIGNATED STATES

W:

AM AU BB BG BR BY CA CN CZ EE FI GE HU JP KE KG KR KZ LK LR LT LV MD MG MN MW MX: NO NZ PL RO RU SD SG SI SK TJ TT UA UZ VN KE MW SD SZ UG AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR

NE SN TD TG

APPLICATION INFO.: PRIORITY INFO.:

WO 1995-US3385 US 1994-208,887

A 19950313 19940311

. . . lanthanide series. These metals can be attached to the peptide probe or anti-target protein antibody using such metal chelating groups as diethylenetriaminepentaacetic acid (DTPA) or ethylenediaminetetraacetic acid (EDTA).

know how to varv the aonrorrlate is parameters without undue ex-oerimentation. Furthermore, general methods in this area are set- forth in Sa:L=cck et al - (sunra) Materials of which solid phase carrier can be made include, but are not limited to, nitrocellulose,

cellulose, paner, substituted polystyrenes, acrylonitriles, . . .

ANSWER 3 OF 5 L38 ACCESSION NUMBER:

PCTFULL COPYRIGHT 2006 Univentio on STN

1995024225 PCTFULL ED 20020514

TITLE (ENGLISH): TITLE (FRENCH): INVENTOR(S):

POLYCHELANTS POLYCHELATEURS MARGERUM, Lawrence; CARVALHO, Joan; GARRITY, Martha;

FELLMANN, Jere, Douglas

NYCOMED SALUTAR, INC.; PATENT ASSIGNEE(S):

COCKBAIN, Julian, Roderick, Michaelson; MARGERUM, Lawrence; CARVALHO, Joan; GARRITY, Martha;

FELLMANN, Jere, Douglas

LANGUAGE OF PUBL.: DOCUMENT TYPE:

English Patent

PATENT INFORMATION:

KIND DATE NUMBER WO 9524225 A1 19950914

DESIGNATED STATES

W:

AM AT AU BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU JP KE KG KP KR KZ LK LR LT LU LV MD MG MN MW MX NL NO NZ PL PT RO RU SD SE SG SI SK TJ TT UA UG US UZ VN KE MW SD SZ UG AT BE CH DE DK ES FR GB GR IE IT LU MC

NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG

APPLICATION INFO .:

WO 1995-GB464 A 19950303 GB 1994-9404208.2 19940304

PRIORITY INFO.:

DETD

Thus, Krejcarek et al (supra) disclosed how polyaminopolycarboxylic acid (PAPCA) chelants, specifically DTPA (diethylenetriaminepentaacetic acid) could be conjugated to a protein, such as human serum albumin (HSA), by reaction of the triethylamine salt of the PAPCA.

Unger et al. in Investigative Radiology 20:693 (1985) analyzed tumor enhancement for magnetic resonance imaging using an anti-CEA monoclonal antibody conjugated with Gd-DTPA. They found no tumor enhancement when 4 Gd atoms were bound per antibody molecule, and predicted that a far greater ratio of.

Thus Hnatowich et al, (supra) used the cyclic anhydride of the chelant DTPA to attach it to a protein.

has thus been used to produce bifunctional polychelants in which the chelant moieties are residues of open chain PAPCAs, such as EDTA and DTPA, and in which the backbone molecule is a polyamine such as polylysine or polyethyleneimine.

Thus for example Manabe et al. in Biochemica et Biophysica Acta 883: 460-467 (1986) reported attaching up to 105 DTPA residues onto a poly-L-lysine backbone using the cyclic anhydride method and also attaching polylysine-polyDTPA polychelants onto monoclonal antibody (anti-HLA IgGj) using a 2-pyridyl disulphide linker achieving a substitution of up to about 42.5 chelants (DTPA resi]\_-:-.-]s) per site-specific macromolecule. Torcrilin et al. in Hybridoma 6:229-240 (1987) also reported attaching DTPA and EDTA to

polyethyleneimine and polylysine backbones which were then attached to a myosin-specific monoclonal antibody, or its Fab fragment, to produce bifunctional polychelants. . .

chelant moieties in the polychelants of the invention may be residues of any of the conventional macrocyclic chelants such as for example DOTA, TETA, DO3A. etc, The macrocyclic skeleton, as mentioned above, preferably has 9 to 25 ring members and conveniently is an optionally oxygen or. . . pendent groups which participate in metal chelation, for example C1-6alkyl groups carrying hydroxyl, amino, phosphonate, or phosphinate or more preferably carboxyl groups. DO3A and DOTA derived macrocycles are especially preferred, i.e. groups of formula HOOC--\F-] X]--COOH HOOC--\F7 /-COOH
N N-] and [-N
EN N N N

Exemplary polyazacycloalkanepolycarboxylates include 1 7,10-tetraazacyclododecanetetraacetic acid (DOTA), 1,4,7,10-tetraazacyclododecane 4,7-triacetic acid (DO3A), 1-oxa-4,7,10-triazacyclododecanetriacetic acid (DOXA), 1,4,7-triazacyclononanetriacetic acid (NOTA) and 1 8,11-tetraazacyclotetradecanetetraacetic acid (TETA), Additionally, the novel tetraazacycloalkanepolycarboxylates, DOTA-N(2-aminoethyl)amide and DOTA-N(4-aminophenethyl)amide are also contemplated, The preparation of the tetraazacycloalkanepolycarboxylate ligands is well known. Synthesis of DOTA is described in U.S. Patent No. 4,647,447 (Gries et al.), U.S. Patent No. 4,639,365 (Sherry) and by Desreux et al.

in Inorg. Chem. 19:1319 (1980). Additionally, DOTA is available commercially from Parish Chemical Co,, Orem, UT, USA. Preparation of D03A is described in EP-A-292689 (Squibb). Desreux, Inorg. Chem., 19:1319. . . al, Inorg. Chem, 26:3458 (1987) and Meares et al, Acc. Chem. Res., 17:202 (1984) describe the properties and chemistry of the macrocyclic ligands DOTA, NOTA, TETA and their backbone-derivatized analogues, including the preparation of NOTA and TETA.

U.S. Patent No, 4,678,667 (Meares et al.) teaches the preparation of a number of macrocyclic, side chain-derivatized ligands including DOTA and TETA.

Derivatization of DOTA to form DOTA
-N(2-aminoethyl)amide
and DOTA-N(4-aminophenethyl)amide is described in detail
hereinafter in Examples 2 and 3, respectively, The
above cited references and all other references
mentioned herein are hereby. . . .

be taken with the lanthanide ions to maintain the pH below 8 to avoid precipitation of the metal hydroxide. Metal incorporation into DOTA derived and related macrocylic chelant moieties will normally be a slow process, as described in the references cited below. Specific examples of the. . .

Med., 3:808 (1986) and WO-A-87/06229 describe

incorporation of Gd(III) into DOTA. A method of preparing Bi and Pb complexes of DOTA is described by Kumar et al, J. Chem. Soc. Chem. Commun., 3:145 (1989).

reduction of 99Tc with Sn in the presence of a weakly coordinating ligand such as glucoheptonate prior to complexation with chelants such as DOTA. These methods are well known in the radiopharmaceutical art 67CU utilizes tetraamine chelates such as tet A or tet B (see Bhardaredj. . .

CCK and hexapeptides), proteins (such as lectins, asialofetuin, polyclonal IgG, blood clotting proteins (e.g. hirudin), lipoproteins and glycoproteins), hormones, growth factors, and clotting factors. . .

In general, known methods can be used to join the macrocyclic chelants to backbone molecules. While for preferred macrocyclic chelants, such as DOTA, the conventional mixed anhydride and cyclic anhydride conjugation techniques are ineffective, it has been found that modifying the mixed anhydride procedure by reacting a polycarboxylic. . . .

For macrocycles with a pendant carboxylate, including but not limited to DOTA, TETA, TRITA (1,4,7,10-tetraazacyclotridecanetetraacetic acid) and NOTA, one of the carboxylates can form an entity which can react with a primary amine group. . .

linked to a backbone molecule through a non-coordinating primary amine group. Macrocyclic chelants having a non-coordinating primary amine group include primary amine side-chain-derivatized DOTA macrocycles, primary aminederivatized DO3A, and primary amine-derivatized hexaaza and octaaza macrocycles and macrobicycles (the HAMs.

for example, physiologically biocompatible buffers (as for example, tromethamine hydrochloride), additions (e,g,, 0.01 to 10 mole percent) of chelants (such as, for example, DTPA, DTPA

bisamide or non-complexed magnifier polychelant) or calcium chelate complexes (as for example calcium DTPA, CaNaDTPA-bisamide, calcium-magnifier polychelant or CaNa salts of magnifier polychelants), or, optionally, additions (e.g., 1 to 50 mole percent) of calcium or sodium salts (for. . .

L38 ANSWER 4 OF 5 ACCESSION NUMBER: TITLE (ENGLISH):

TITLE (FRENCH):

INVENTOR(S):

PATENT ASSIGNEE(S): DOCUMENT TYPE: PATENT INFORMATION: PCTFULL COPYRIGHT 2006 Univentio on STN
1995005842 PCTFULL ED 20020514
METHOD AND DEVICE FOR TREATING GASTROINTESTINAL MUSCLE
DISORDERS AND OTHER SMOOTH MUSCLE DYSFUNCTION
PROCEDE ET DISPOSITIF POUR TRAITER LES TROUBLES
MUSCULAIRES GASTRO-INTESTINAUX ET AUTRES
DYSFONCTIONNEMENTS DES MUSCLES LISSES

PASRICHA, Pankaj, J.; KALLOO, Anthony, N.

THE JOHNS HOPKINS UNIVERSITY

Patent

NUMBER KIND DATE
----WO 9505842 A1 19950302

DESIGNATED STATES

W:

CA JP AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE

APPLICATION INFO.:

WO 1994-US9759 A 19940823

PRIORITY INFO.:

US 1993-112,088

19930826

Figs. 3A and B show the effect of intrasphincteric injection of BoTx on DETD LES response to cholecystokinin octapeptide (CCK)

response of the LES to the IV administration of edrophonium (Tensilon; ICN Pharmaceuticals Inc., Costa Mesa, CA) and cholecystokinin octapeptide (CCK-8) (Kinevac; ER Squibb amp; Sons, Princeton, NJ) in three

additional piglets was also measured. LES pressures, measured by a DENTSLEEVE, were recorded in response to IV edrophonium (5 mg). After a SUBSTITUTE SHEET (RULE 26)

washout period of 10 minutes, CCK (5 µ g IV) was then administered.

Subsequently, BoTx was injected into the LES, as described above, and the

experiment was. . .

Intrasphincteric BoTx also altered the response of the LES to

(Figure 3). In untreated piglets, CCK did not cause any significant change in

LES pressure. However, after intrasphincteric BoTx injection, a significant

increase in LES pressure was seen in response to CCK. It should be noted that

despite what was felt to be an adequate washout period (10 minutes) in between

injections, basal. . .

retention studies

After an overnight fast, patients were asked to ingest a corn-flake meal with milk containing 0.531 mci 99 aiTc DTPA. Subsequently,

serial dynamic images were obtained with the subject sitting erect in front of a gamma

Retention was expressed. . .

ANSWER 5 OF 5

PCTFULL COPYRIGHT 2006 Univentio on STN

ACCESSION NUMBER:

1993006868 PCTFULL ED 20020513

TITLE (ENGLISH):

DENDRIMERIC POLYCHELANTS

TITLE (FRENCH):

POLYCHELATEURS DENDRIMERES

INVENTOR(S):

WATSON, Alan, D.

PATENT ASSIGNEE(S):

COCKBAIN, Jilian, Roderick, Michaelson;

NYCOMED SALUTAR, INC.;

WATSON, Alan, D.

LANGUAGE OF PUBL.:

English

DOCUMENT TYPE:

Patent

PATENT INFORMATION:

KIND DATE NUMBER \_\_\_\_\_\_

WO 9306868

A1 19930415

DESIGNATED STATES

AU BB BG BR CA CS FI HU JP KP KR LK MG MN MW NO PL RO RU SD US AT BE CH DE DK ES FR GB GR IE IT LU MC NL SE

BF BJ CF CG CI CM GA GN ML MR SN TD TG

APPLICATION INFO .:

WO 1992-EP2308

A 19921006

PRIORITY INFO.:

US 1991-7/772,349

19911007

. . chelates which are useful in diagnostic imaging

and in radiotherapy and which comprise a plurality of macrocyclic chelant moieties, e.g. DOTA

residues, conjugated to an up to fifth generation dendrimer backbone

molecule, e.g. a starburst dendrimer. To produce a site-specific polychelate,. . . utilises dans l'imagerie diagnostique et en radiotherapie. Ils comportent une pluralite de fractions de chelateurs macrocycliques, par exemple des restes DOTA, conjugues a une molecule de squelette dendrimere dont la generation va jusqu'a la cinquieme, par exemple un dendrimere en etoile..

paramagnetic metal ion DETD . chelates of bifunctional chelants for use as MRI contrast agents, Thus, Krejcarek et al (supra) disclosed how polyaminopolycarboxylic acid (PAPCA) chelants, specifically DTPA (diethylepetriaminepentaacetic acid) could be conjugated to a protein, such as human serum albumin (HSA), by reaction of the triethylamine salt of the PAPCA.

> 152:571 (1988))e Unger et al, in Investigative Radiology 20:693 (1985) analyzed tumor enhancement for magnetic resonance imaging using an anti-CEA monoclonal antibody conjugated with Gd-DTPA\* They found no tumor enhancement when 4 Gd atoms were bound per antibody molecule, and predicted that a far greater ratio of.

> Thus Hnatowich et al, (supra) used the cyclic anhydride of the chelant DTPA to attach it to a protein, This, is a relatively simple one-step synthesis procedure which as a result has been used by. .

thus been used to produce bifunctional polychelants in which the chelant moieties are residues of open chain PAPCAs,, such as EDTA and DTPA,, and in which the backbone molecule is a polyamine such as polylysine or polyethyleneimine. Thus for example Manabe et al, in Biochemica. et Biophysica Acta 883: 460-467 (1986) reported attaching up to 105 DTPA residues onto a poly-L-lysine backbone using the cyclic anhydride method and also attaching polylysine-polyDTPA polychelants onto monoclonal antibody (anti-HLA IgGj) using a 2-pyridyl disulphide linker achieving a substitution of up to about 42,5 chelants (DTPA residues) per site-specific macromolecule. Torchlin et al. in Hybridoma 6:229-240 (1987) also reported attaching DTPA and EDTA to polyethyleneimine and polylysine backbones which:werethen attached to a myosin-specific monoclonal antibody, or its Fab fragment, to produce bifunctional polychelants.

diagnosis and therapy, due in part to their unique localization in the body, The monomeric chelates presently used for MRI contrast enhancement (e.g,, Gd(DTPA)2-,, Gd(DOTA)'-) have in vivo applications related to their specific, rapid biodistribution, localizing these chelates in the extravascularl extracellular spaces of the body. The size. . . .

Exemplary polyazacycloalkanepolycarboxylates include 1,4,7,10-tetraazacyclododecanetetraacetic acid (DOTA), 1,4,7,10-tetraazacyclododecane-1,4,7-triacetic acid (DO3A), I-oxa-4,7,10-triazacyclododecanetriacetic

ABFR .

acid (DOXA), 1.4,7-triazacyclononanetriacetic acid (NOTA) and 1.4,8,11-tetraazacyclotetradecanetetraacetic acid (TETA), Additionally, the novel - tetraazacycloalkanepolycarboxylates, DOTA-N(2-aminoethyl)amide and DOTA-N(4-aminophenethyl)amide are also contemplated.

The preparation of, the tetraazacycloalkanepolycarboxylate ligands is well known. Synthesis of DOTA is described in U.S. Patent No, 4,647,447 (Gries et al,), U.S, Patent No, 4,639,365 (Sherry) and by Desreux et al, in Inorg. Chem, .19:1319 (1980). Additionally, DOTA is available commercially from Parrish Chemical Co,, Orem, UT, USA. Preparation of DO3A is described in EP-A-292689 (Squibb). Desreux, Inorg. Chem,, 19:1319. . . et al, Inorg, Chem, 26:3458 (1987) and Meares et al, Acc, Chem, Res,, 17:202 (1984) describe theproperties and chemistry of the macrocyclic ligands DOTA, NOTA, TETA and their backbone-derivatized analogues, including the preparation of NOTA and TETA, U.S. Patent No. 4,678,667 (Meares et al,) teaches the preparation of a number of macrocyclic, side chainderivatized ligands including DOTA and TETA, Derivatization of DOTA to form DOTA -N(2-aminoethyl)amide and DOTA-N(4-aminophenethyl) amide is described in detail hereinafter in Examples 2 and 3, respectively. The above cited references and all other references mentioned herein are hereby.

acids, oligopeptides (e.g. hexapeptides), molecular recognition units (MRU's), single chain antibodies (SCA's), proteins, Fab fragments, and antibodies. Examples of site-directed molecules include polysaccharides (e,g, CCK and hexapeptides), proteins (such as lectins, asialofetuin, polyclonal IgG, blood clotting proteins (e.g. hirudin), lipoproteins and glycoproteins), hormones, growth factors, and clotting

## molecule

factors (such.

in general, known methods can be used to join the macrocyclic chelants to backbone molecules. While for preferred macrocyclic chelants, such as DOTA, the conventional mixed anhydride and cyclic anhydride conjugation techniques are ineffective, it has been found that modifying the mixed anhydride procedure by reacting a. . .

For macrocycles with a pendant carboxylate, including but not limited to DOTA, TETA, TRITA (1.4,7,10-tetraazacyclotridecanetetraacetic acid) and NOTA, one of the carboxylates can form an entity which can react with a primary amine group of. . .

### linked to the

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Metal incorporation into DOTA derived and related

macrocylic chelant moieties will normally be a slow process, as described in the references cited below, Specific examples of the. . .

Ned,, 3:808 (1986) and WO-A-87/06229 describe incorporation of Gd(III) into DOTA, A method of preparing Bi and Pb complexes of DOTA is described by Kumar et alf J. Chem, Soc, Chem, Commun., 3:145 (1989) o The above references are incorporated herein by reference in their. . .

reduction of 99mTc with Sn in the presence of a weakly coordinating ligand such as glucoheptonate prior to complexation with chelants such as DOTA, These methods are well known in the radiopharmaceutical art. OCu utilizes tetraamine chelaltes such as tet A or tet B (see Bhardaredj. . .

for example, physiologically biocompatible buffers (as for example, tromethamine hydrochloride), additions (e.g., 0,01 to 10 mole percent) of chelants (such as, for example, DTPA, DTPA

bisamide or non-complexed magnifier polychelant) or calcium chelate complexes (as for example calcium DTPA, CaNaDTPA-bisamide, calcium-magn-ifier polychelant or CaNa salts of magnifier polychelants),, or, optionally, additions (e.g., I to 50 mole percent) of calcium or sodium salts (for. . .

### EXAMPLE I

Preparation of DOTA Carboxycarbonic Anhydride DOTA(0\*808 g-I 2,0 mmol) was suspended in 5.0 ml of anhydrous acetonitrile, Tetramethylguanidine (1e00 mli, 8.0 mmol) was added and the mixture stirred under an atmosphere of nitrogen for about 5 minutes at ambient temperature until the DOTA was dissolved, The resulting solution was cooled to -250C under an atmosphere of nitrogen and stirred while adding 0,260 ml (2,0 mmol).

The resulting slurry was stirred for I hour at -25 C4 EXAMPLE 2 Preparation of DOTA-N(2-aminoethV1)amide To the cold slurry from Example 1 was added a solution of mono-BOC-ethylenediamine (0,320g, 2mmol) in 2 ml acetonitrile and the mixture stirred. . . afforded 0.35g of a crystalline glass. IH NMR demonstrated the expected product, as well as some residual acetate (from chromatography), EXAMPLE 3 Preparation of DOTA-N(4-aminoDhenethvl)amide To the cold slurry from Example 1 is added a solution of 4-nitrophenethylamine (0,332g, 2mmol) in 4.0 ml acetonitrile, The mixture is stirred. . . and pH adjusted to 1015 with NaOH to form a mixture which is extracted with ethyl acetate to remove unreacted amine, The product, DOTA-N-(41-nitrophenethyl)amide, is isolated by ion exchange chromatography on DOWEX AGI-XS resin.

ceases to drop, The product is isolated by filtering off catalyst and evaporating the filtrate to dryness, EXAMPLE 4
Activation of Amino Group of DOTA-N(2-aminoethyl)amide

with Thiophosgene - Conversion to Isothiocyanate Groups An aqueous solution of the product prepared in Example 2 is added to an equal volume. . .

The procedure is repeated, substituting the product of Example 3 for the product of Example 2, EXAMPLE 5
Activation of Amino Group of DOTA-N(2-Aminoethyl) Amide with Bromoacetyl Chloride - Conversion to Bromoacetamide Grou'ps
An aqueous solution of the product prepared in Example 2 (20mg/ml) which also contains triethylamine (20mg/ml) is. . .

## EXAMPLE 13

Preparation of - PAMAM - Poly DOTA
The G2.0 PAMAM dendrimer prepared in Example 10 (log, 0.01 mol) is combined with 12 equivalents of DOTA carboxycarbonic anhydride (0,13 mol) prepared as in Example 1, by slowly mixing a precooled (00 C) acetonitrile solution (20 ml) of dendrimer to the DOTA mixed anhydride slurry over 10 minutes and gradually allowing the reaction mixture to warm to ambient temperature. The reaction mixture is worked up. . .

# EXAMPLE 17

Preparation of DOTA-G3 Dendrimer magnifier
An acetonitrile solution of tris-t-butyl-DO3A and
C1CH2CONHCH2(C6H4)pNO2 (Example 16) are heated at 65DC for
24 hours, The chelant-linker product is isolated. . .

CLMEN. . . compound according to any one of claims 1 to 13 wherein said macrocyclic chelants are selected from the residues of 1,4,7,10- tetraazacyclododecanetetraacetic acid (DOTA),

1 7,10-tetraazacyclododecane 4 triacetic acid (DO3A), I-oxa 7,10-triazacyclododecane-triacetic acid (DOXA), 1 7-triazacyclononanetriacetic acid (NOTA), 11408fll-tetraazacyclotetradecanetetraacetic acid (TETA), DOTA-N(2-aminoethyl)amide and DOTA-N(4-aminophenethyl)amide.

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NEWS
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NEWS 10
                 CEABA-VTB classification code fields reloaded with new
         SEP 28
NEWS 11
                 classification scheme
                 LOGOFF HOLD duration extended to 120 minutes
         OCT 19
NEWS 12
                 E-mail format enhanced
         OCT 19
NEWS 13
                 Option to turn off MARPAT highlighting enhancements available
         OCT 23
NEWS 14
                 CAS Registry Number crossover limit increased to 300,000 in
NEWS 15
         OCT 23
                 multiple databases
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NEWS 16
                 has been enhanced and reloaded
                 CHEMLIST enhanced with new search and display field
         OCT 30
NEWS 17
                 JAPIO enhanced with IPC 8 features and functionality
NEWS 18
         NOV 03
                 CA/CAplus F-Term thesaurus enhanced
NEWS 19
         NOV 10
                 STN Express with Discover! free maintenance release Version
         NOV 10
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                 8.01c now available
                 CA/CAplus pre-1967 chemical substance index entries enhanced
NEWS 21
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                 with preparation role
                 CAS Registry Number crossover limit increased to 300,000 in
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NEWS 24
                 CAS REGISTRY updated with new ambiguity codes
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                 CAS REGISTRY chemical nomenclature enhanced
         DEC 11
NEWS 26
              NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT
NEWS EXPRESS
              MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
              AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.
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as well as in synaptic membranes.
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L2
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    FILE 'CAPLUS' ENTERED AT 13:39:00 ON 07 DEC 2006
L3
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L5
             5 S DOTA AND L3
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            12 S L6 AND L3
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^{\text{L8}}
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         14458 S METAL CHELAT?
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           347 DPTA
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L16
            4 L10 AND (DPTA OR DOTA)
=> d ibib 1-4
L16 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN
                       2004:702005 CAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                        141:230668
                        Contrast enhanced x-ray phase imaging
TITLE:
                        Mattiuzzi, Marco; Arfelli, Fulvia; Menk, Ralf-Hendrik;
INVENTOR(S):
                        Rigon, Luigi; Besch, Hans-Juergen
PATENT ASSIGNEE(S):
                        Bracco Imaging S.P.A., Italy
                        PCT Int. Appl., 38 pp.
SOURCE:
                        CODEN: PIXXD2
DOCUMENT TYPE:
                        Patent
                        English
LANGUAGE:
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
                                          APPLICATION NO.
     PATENT NO.
                        KIND
                               DATE
                                          ______
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                              20040826 WO 2004-EP1213
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         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
            CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
            GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
            LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI
         RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE,
             BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU,
            MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN,
```

GQ, GW, ML, MR, NE, SN, TD, TG

EP 1592456 A1 20051109 EP 2004-709594 20040210 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ; EE, HU, SK JP 2006517558 T2 20060727 JP 2006-501789 20040210 PRIORITY APPLN. INFO.: US 2003-446986P P 20030213

L16 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:43075 CAPLUS

DOCUMENT NUMBER: 135:118839

TITLE: Use of the rat pancreatic CA20948 cell line for the

comparison of radiolabelled peptides for

receptor-targeted scintigraphy and radionuclide

therapy

AUTHOR(S): Bernard, B. F.; Krenning, E.; Breeman, W. A. P.;

Visser, T. J.; Bakker, W. H.; Srinivasan, A.; De Jong,

WO 2004-EP1213

W 20040210

М.

CORPORATE SOURCE: Departments of Nuclear Medicine, University Hospital

Dijkzigt, Rotterdam, 3015 GD, Neth.

SOURCE: Nuclear Medicine Communications (2000), 21(11),

1079-1085

CODEN: NMCODC; ISSN: 0143-3636 Lippincott Williams & Wilkins

DOCUMENT TYPE: Journal LANGUAGE: English

PUBLISHER:

REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:271563 CAPLUS

DOCUMENT NUMBER: 129:119669

TITLE: Unsulfated DTPA- and DOTA-CCK analogs as

specific high-affinity ligands for CCK-B

receptor-expressing human and rat tissues in vitro and

in vivo

AUTHOR(S): Reubi, J. C.; Waser, B.; Schaer, J. C.; Laederach, U.;

Erion, J.; Srinivasan, A.; Schmidt, M. A.; Bugaj, J.

Ε.

CORPORATE SOURCE: Institute of Pathology, Division of Cell Biology and

Experimental Cancer Research, University of Berne,

Switz.

SOURCE: European Journal of Nuclear Medicine (1998), 25(5),

481-490

CODEN: EJNMD9; ISSN: 0340-6997

PUBLISHER: Springer-Verlag

DOCUMENT TYPE: Journal LANGUAGE: English

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:594650 CAPLUS

DOCUMENT NUMBER: 127:259530

TITLE: Use of labeled CCK-B receptor ligands for the

detection, localization, and treatment of malignant

human tumors

INVENTOR(S):
Reubi, Jean-Claude

PATENT ASSIGNEE(S): Mallinckrodt Medical, Inc., USA; Reubi, Jean-Claude

SOURCE: PCT Int. Appl., 61 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: . English FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND DATE	APPLICATION NO.	DATE
WO 9731657	•	WO 1997-US3056	19970225
· W: CA, JP, US	A3 19971023		
		FR, GB, GR, IE, IT,	
CA 2247430	AA 19970904	CA 1997-2247430	19970225
EP 885017 °	A2 19981223	EP 1997-908751	19970225
R: AT, BE, CH, IE, FI	DE, DK, ES, FR,	GB, GR, IT, LI, LU,	NL, SE, MC, PT,
JP 2000506141	T2 20000523	JP 1997-531108	19970225
US 2004185510	A1 20040923	US 2003-626229	20030724
PRIORITY APPLN. INFO.:		EP 1996-200498	A 19960227
		WO 1997-US3056	W 19970225
		US 1999-125823	B1 19990119
OTHER SOURCE(S):	MARPAT 127:25953	30 ·	

=> s l10 and DTPA 9401 DTPA 6 DTPAS 9401 DTPA

(DTPA OR DTPAS)

L17 9 L10 AND DTPA

=> d ibib 1-9

L17 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2006 ACS: on STN

ACCESSION NUMBER: 2004:424231 CAPLUS

DOCUMENT NUMBER:

141:271813

TITLE:

Synthesis and characterization of a sulfated and a non-sulfated cyclic CCK8 analogue functionalized with

a chelating group for metal labelling

AUTHOR(S): CORPORATE SOURCE: De Luca, Stefania; Morelli, Giancarlo Centro Interuniversitario per la Ricerca sui Peptidi

Bioattivi (CIRPeB) and Dipartimento di Chimica

Biologica, Universita di Napoli "Federico II", Naples,

80134, Italy

SOURCE: Journal of Peptide Science (2004), 10(5), 265-273 CODEN: JPSIEI; ISSN: 1075-2617

PUBLISHER:

John Wiley & Sons Ltd.

DOCUMENT TYPE: LANGUAGE:

Journal

English

REFERENCE COUNT:

THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS 13 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2004:254192 CAPLUS

DOCUMENT NUMBER:

142:62411

TITLE:

In Vitro and In Vivo Characterization of Indium-111 and Technetium-99m Labeled CCK-8 Derivatives for CCK-B

Receptor Imaging

AUTHOR(S):

Aloj, L.; Panico, M.; Caraco, C.; Del Vecchio, S.; Arra, C.; Affuso, A.; Accardo, A.; Mansi, R.; Tesauro, D.; De Luca, S.; Pedone, C.; Visentin, R.; Mazzi, U.;

Morelli, G.; Salvatore, M.

CORPORATE SOURCE:

Istituto di Biostrutture e Bioimmagini, CNR, Naples,

Italy

SOURCE:

Cancer Biotherapy & Radiopharmaceuticals (2004),

19(1), 93-98

CODEN: CBRAFJ; ISSN: 1084-9785

PUBLISHER:

Mary Ann Liebert, Inc.

DOCUMENT TYPE:

Journal English

LANGUAGE: REFERENCE COUNT:

16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS

THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT L17 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN 2003:133309 CAPLUS ACCESSION NUMBER: DOCUMENT NUMBER: 138:197782 Peptides conjugates, their derivatives with metal TITLE: complexes and use thereof for magnetic resonance imaging (MRI) Aime, Silvio; Gianolio, Eliana; Morelli, Giancarlo; INVENTOR(S): Pedone, Carlo; Tesauro, Diego; Lattuada, Luciano; Visigalli, Massimo; Anelli, Pier Lucio Bracco Imaging S.P.A., Italy PATENT ASSIGNEE(S): PCT Int. Appl., 44 pp. SOURCE: CODEN: PIXXD2 DOCUMENT TYPE: Patent English LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION: APPLICATION NO. DATE PATENT NO. KIND DATE \_\_\_\_\_\_ ---**-**-----20030220 WO 2002-EP8382 20020726 A2 WO 2003014157 A3 20031113 . WO 2003014157 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW. RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG 20030224 AU 2002-328981 20020726 AU 2002328981 A1 20020726 20040428 EP 2002-764797 EP 1412383 A2 EP 1412383 В1 20061115 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK JP 2003-519106 20020726 Т2 20050421 JP 2005510461 20050113 US 2004-485847 20040902 US 2005008573 A 20010803 PRIORITY APPLN. INFO.: IT 2001-MI1708 W 20020726 WO 2002-EP8382 OTHER SOURCE(S): MARPAT 138:197782 L17 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN 2001:609701 CAPLUS ACCESSION NUMBER: DOCUMENT NUMBER: 136:321340 New radiolabeled CCK-8 analogues [Tc-99m-GH-CCK-8 and TITLE: Tc-99m-DTPA-CCK-8]: preparation and biodistribution studies in rats and rabbits Ertay, T.; Unak, P.; Bekis, R.; Yurt, F.; Biber, F. AUTHOR(S): Z.; Durak, H. Dept. of Nuclear Medicine, Dokuz Eylul University, CORPORATE SOURCE: Medical School, Inciralti, Izmir, Turk. Nuclear Medicine and Biology (2001), 28(6), 667-678 SOURCE: CODEN: NMBIEO; ISSN: 0969-8051 PUBLISHER: Elsevier Science Inc.

L17 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN 1999:402924 CAPLUS ACCESSION NUMBER:

32

Journal English

131:225550 DOCUMENT NUMBER:

DOCUMENT TYPE:

REFERENCE COUNT:

LANGUAGE:

Radiolabeled peptides for targeting TITLE:

cholecystokinin-B/gastrin receptor-expressing tumors

Behr, Thomas M.; Jenner, Niels; Behe, Martin; AUTHOR(S):

Angerstein, Christa; Gratz, Stefan; Raue, Friedhelm;

Becker, Wolfgang

Department of Nuclear Medicine, Georg-August-CORPORATE SOURCE:

University, Gottingen, D-37075, Germany

SOURCE:

Journal of Nuclear Medicine (1999), 40(6), 1029-1044

CODEN: JNMEAQ; ISSN: 0161-5505 Society of Nuclear Medicine, Inc.

PUBLISHER: DOCUMENT TYPE: Journal

English LANGUAGE:

REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1999:396519 CAPLUS

DOCUMENT NUMBER:

131:200015

TITLE:

Tri-t-butyl-DTPA: a versatile synthon for the preparation of DTPA-containing peptides

by solid phase

AUTHOR(S):

Srinivasan, Ananth; Schmidt, Michelle A. Mallinckrodt Inc., Hazelwood, MO, 63042, USA

CORPORATE SOURCE: SOURCE:

Peptides: Frontiers of Peptide Science, Proceedings of the American Peptide Symposium, 15th, Nashville, June

14-19, 1997 (1999), Meeting Date 1997, 267-268. Editor(s): Tam, James P.; Kaumaya, Pravin T. P.

Kluwer: Dordrecht, Neth.

CODEN: 67UCAR Conference

DOCUMENT TYPE:

English

LANGUAGE: REFERENCE COUNT:

THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1998:271563 CAPLUS

DOCUMENT NUMBER:

129:119669

TITLE:

Unsulfated DTPA- and DOTA-CCK analogs as specific high-affinity ligands for CCK-B

receptor-expressing human and rat tissues in vitro and

AUTHOR(S):

Reubi, J. C.; Waser, B.; Schaer, J. C.; Laederach, U.; Erion, J.; Srinivasan, A.; Schmidt, M. A.; Bugaj, J.

CORPORATE SOURCE:

Institute of Pathology, Division of Cell Biology and Experimental Cancer Research, University of Berne,

Switz. SOURCE:

European Journal of Nuclear Medicine (1998), 25(5),

481-490

CODEN: EJNMD9; ISSN: 0340-6997

PUBLISHER:

Springer-Verlag

DOCUMENT TYPE:

Journal

LANGUAGE:

English

REFERENCE COUNT:

THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS 26 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1997:594650 CAPLUS

DOCUMENT NUMBER:

127:259530

TITLE:

Use of labeled CCK-B receptor ligands for the

detection, localization, and treatment of malignant

human tumors

INVENTOR(S):

Reubi, Jean-Claude .

PATENT ASSIGNEE(S): Mallinckrodt Medical, Inc., USA; Reubi, Jean-Claude

SOURCE:

PCT Int. Appl., 61 pp.

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http://www.cas.org/ONLINE/UG/regprops.html

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=> s DYMGWMDF/SQSP

424 DYMGWMDF/SQSP

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=> s DPTA and 13

347 DPTA 1 DPTAS 347 DPTA

(DPTA OR DPTAS)

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=> s DOTA and 13

1203 DOTA

5 DOTA AND L3 T.5

=> d ibib 1-5

ANSWER 1 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2002:240598 CAPLUS

DOCUMENT NUMBER:

136:272268

TITLE:

Prochelators for the preparation of radiometal labeled

molecules having improved biological properties Maecke, Helmut R.; Eisenwiener, Klaus; Powell, Pia

INVENTOR(S): PATENT ASSIGNEE(S):

Mallinckrodt, Inc., USA

PCT Int. Appl., 21 pp.

SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PA'	TENT	NO.			KIN	D	DATE		i	APPL	ICAT:	ION I	NO.		D	ATE	
	<del>-</del> -					-			•								
WO	2002	0242	35		A2		2002	0328	1	WO 2	<b>301-</b> 1	EP54	83		20	0010	511
WO	2002	0242	35		А3		2002										
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                                             EP 2001-955279
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PRIORITY APPLN. INFO .:
                                                                  W 20010511
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OTHER SOURCE(S):
     ANSWER 2 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN
                         2000:619258 CAPLUS
ACCESSION NUMBER:
                          133:350200 ...
DOCUMENT NUMBER:
                          A convenient synthesis of novel bifunctional
TITLE:
                          prochelators for coupling to bioactive peptides for
                          radiometal labelling
                          Eisenwiener, K.-P.; Powell, P.; Macke, H. R.
AUTHOR(S):
                          Department of Radiology, Institute of Nuclear
CORPORATE SOURCE:
                          Medicine, Division of Radiological Chemistry,
                          University Hospital, Basel, CH-4031, Switz.
                          Bioorganic & Medicinal Chemistry Letters (2000),
SOURCE:
                          10(18), 2133-2135
                          CODEN: BMCLE8; ISSN: 0960-894X
                          Elsevier Science Ltd.
PUBLISHER:
                          Journal
DOCUMENT TYPE:
                          English
LANGUAGE:
                          CASREACT 133:350200
OTHER SOURCE(S):
                                THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS
REFERENCE COUNT:
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     ANSWER 3 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:
                          2000:44679 CAPLUS
DOCUMENT NUMBER:
                          132:319291
                          Preclinical and initial clinical evaluation of
TITLE:
                          111In-labeled nonsulfated CCK8 analog: A peptide for
                          CCK-B receptor-targeted scintigraphy and radionuclide
                          De Jong, Marion; Bakker, Willem H.; Bernard, Bert F.;
AUTHOR(S):
                          Valkema, Roelf; Kwekkeboom, Dik J.; Reubi,
                          Jean-Claude; Srinivasan, Ananth; Schmidt, Michelle;
                          Krenning, Eric P.
                          Department of Nuclear Medicine, University Hospital
CORPORATE SOURCE:
                          Dijkzigt, Rotterdam, 3015 GD, Neth.
                          Journal of Nuclear Medicine (1999), 40(12), 2081-2087
SOURCE:
                          CODEN: JNMEAQ; ISSN: 0161-5505
                          Society of Nuclear Medicine, Inc.
PUBLISHER:
DOCUMENT TYPE:
                          Journal
                          English
LANGUAGE:
                                THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS
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REFERENCE COUNT:
                                RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
    ANSWER 4 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN
                          1998:271563 CAPLUS
ACCESSION NUMBER:
                          129:119669
DOCUMENT NUMBER:
                          Unsulfated DTPA- and DOTA-CCK analogs as
TITLE:
```

specific high-affinity ligands for CCK-B

receptor-expressing human and rat tissues in vitro and

in vivo

Reubi, J. C.; Waser, B.; Schaer, J. C.; Laederach, U.; AUTHOR(S):

Erion, J.; Srinivasan, A.; Schmidt, M. A.; Bugaj, J.

Institute of Pathology, Division of Cell Biology and CORPORATE SOURCE:

Experimental Cancer Research, University of Berne,

Switz.

European Journal of Nuclear Medicine (1998), 25(5), SOURCE:

481-490

CODEN: EJNMD9; ISSN: 0340-6997

Springer-Verlag PUBLISHER:

Journal DOCUMENT TYPE: English LANGUAGE:

THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS 26 REFERENCE COUNT:

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 5 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN

1997:594650 CAPLUS ACCESSION NUMBER:

127:259530 DOCUMENT NUMBER:

Use of labeled CCK-B receptor ligands for the TITLE:

detection, localization, and treatment of malignant

human tumors

Reubi, Jean-Claude INVENTOR(S):

Mallinckrodt Medical, Inc., USA; Reubi, Jean-Claude PATENT ASSIGNEE(S):

PCT Int. Appl., 61 pp. SOURCE:

CODEN: PIXXD2

Patent DOCUMENT TYPE: English LANGUAGE:

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9731657 WO 9731657	A2 A3	19970904 19971023	WO 1997-US3056	19970225
W: CA, JP, US RW: AT, BE, CH, CA 2247430 EP 885017 R: AT, BE, CH,	AA A2	19970904 19981223	FR, GB, GR, IE, IT, CA 1997-2247430 EP 1997-908751 GB, GR, IT, LI, LU,	19970225 19970225
IE, FI JP 2000506141 US 2004185510 PRIORITY APPLN. INFO.:	T2 A1	20000523 20040923	JP 1997-531108 US 2003-626229 EP 1996-200498 WO 1997-US3056 US 1999-125823	19970225 20030724 A 19960227 W 19970225 B1 19990119

MARPAT 127:259530 OTHER SOURCE(S):

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L6 134722 CHELAT?

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FILE 'REGISTRY' ENTERED AT 13:36:14 ON 07 DEC 2006

136 S DY'NLE'GW'NLE'DF/SQSP L1

424 S DYMGWMDF/SQSP L2

FILE 'CAPLUS' ENTERED AT 13:39:00 ON 07 DEC 2006

84 S L1 L3

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     ANSWER 1 OF 1 CAPLUS COPYRIGHT 2006 ACS on STN
                         1998:271563 CAPLUS
ACCESSION NUMBER:
                         129:119669
DOCUMENT NUMBER:
                         Unsulfated DTPA- and DOTA-CCK analogs as specific
TITLE:
                         high-affinity ligands for CCK-B receptor-expressing
                         human and rat tissues in vitro and in vivo
                          Reubi, J. C.; Waser, B.; Schaer, J. C.; Laederach, U.;
AUTHOR(S):
                          Erion, J.; Srinivasan, A.; Schmidt, M. A.; Bugaj, J.
                          Institute of Pathology, Division of Cell Biology and
CORPORATE SOURCE:
                          Experimental Cancer Research, University of Berne,
                          Switz.
                          European Journal of Nuclear Medicine (1998), 25(5),
SOURCE:
                          481-490
                          CODEN: EJNMD9; ISSN: 0340-6997
                          Springer-Verlag
PUBLISHER:
                          Journal
DOCUMENT TYPE:
                          English
LANGUAGE:
                                THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS
                          26
REFERENCE COUNT:
                                RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
=> d his
     (FILE 'HOME' ENTERED AT 13:35:48 ON 07 DEC 2006)
     FILE 'REGISTRY' ENTERED AT 13:36:14 ON 07 DEC 2006
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L1
            424 S DYMGWMDF/SQSP
L2
     FILE 'CAPLUS' ENTERED AT 13:39:00 ON 07 DEC 2006
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=> s 12
          4485 L2
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=> s 110 and 16
            49 L10 AND L6
L11
=> s 111 not py>1997
       9086354 PY>1997
            20 L11 NOT PY>1997
L12
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=> s 111 not py>1996

9844902 PY>1996

20 L11 NOT PY>1996 L13

=> d ibib 1-4

L13 ANSWER 1 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN

1996:395151 CAPLUS ACCESSION NUMBER:

125:133249 DOCUMENT NUMBER:

The excitatory effect of cholecystokinin on rat TITLE: neostriatal neurons: ionic and molecular mechanisms

Wu, Tony; Wang, Hung-Li AUTHOR(S):

Department of Neurology, Chang Gung Memorial Hospital, CORPORATE SOURCE:

Kwei-San, Tao-Yuan, Taiwan

European Journal of Pharmacology (1996), 307(2), SOURCE:

125-132

CODEN: EJPHAZ; ISSN: 0014-2999

Elsevier PUBLISHER: Journal DOCUMENT TYPE: English LANGUAGE:

L13 ANSWER 2 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN

1995:862980 CAPLUS ACCESSION NUMBER:

123:247490 DOCUMENT NUMBER:

Nitric oxide modulates pepsinogen secretion induced by TITLE:

calcium-mediated agonist in guinea pig gastric chief

cells

Fiorucci, Stefano; Distrutti, Eleonora; Chiorean, AUTHOR(S):

Mihnea; Santucci, Luca; Belia, Silvia; Fano, Giorgio;

De Giorgio, Roberto; Stanghellini, Vincenzo;

Corinaldesi, Roberto; Morelli, Antonio

Dipartimento di Medicina Clinica, Univ. degli Studi di CORPORATE SOURCE:

Perugia, Perugia, Italy

Gastroenterology (1995), 109(4), 1214-23 SOURCE:

CODEN: GASTAB; ISSN: 0016-5085

Saunders PUBLISHER: Journal DOCUMENT TYPE: English LANGUAGE:

L13 ANSWER 3 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN

1995:636142 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 123:26032

Potentiation of cholecystokinin-induced amylase TITLE:

release by peptide VIP in guinea pig pancreatic acini

Tanaka, Keiko; Shibuya, Izumi; Kanno, Tomio AUTHOR(S):

Faculty Veterinary Medicine, Hokkaido University, CORPORATE SOURCE:

Sapporo, 060, Japan

Japanese Journal of Physiology (1995), 45(2), 241-56 SOURCE:

CODEN: JJPHAM; ISSN: 0021-521X

Business Center for Academic Societies Japan PUBLISHER:

Journal DOCUMENT TYPE: English

LANGUAGE:

CAPLUS COPYRIGHT 2006 ACS on STN L13 ANSWER 4 OF 20

1995:540954 CAPLUS ACCESSION NUMBER:

122:282413 DOCUMENT NUMBER:

Highly sensitive non-isotopic immunoassays for TITLE: cholecystokinin using various detection methods

Ito, Katsutoshi; Kodama, Ryoko; Maeda, Masako; Tsuji, AUTHOR(S):

Akio

Sch. Pharmaceutical Sci., Showa Univ., Tokyo, 142, CORPORATE SOURCE:

Analytical Letters (1995), 28(5), 797-807 SOURCE:

CODEN: ANALBP; ISSN: 0003-2719

Dekker PUBLISHER: Journal DOCUMENT TYPE:

LANGUAGE:

CORPORATE SOURCE:

```
=> d kwic
L13 ANSWER 1 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN
          . currents. Internal administration of heparin (2 mg/mL), an
     inositol 1,4,5-trisphosphate (IP3) receptor antagonist, and buffering of
     intracellular calcium with the Ca2+-chelator, BAPTA
     (1,2-bis(2-aminophenoxy)ethane-N,N,N',N'-tetraacetic acid, 10 mM),
     suppressed CCK-8-evoked cationic currents. These findings suggest that,
     by activating CCKB receptors, CCK-8 excites rat.
     1947-37-1 25126-32-3, Cholecystokinin-8 (pig)
IT
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); BIOL (Biological study)
        (ionic and mol. mechanisms of excitatory effect of cholecystokinin on
        rat neostriatal neurons)
=> s metal chelat?
       1697487 METAL
        855839 METALS
       2059434 METAL
                 (METAL OR METALS)
        134722 CHELAT?
         14458 METAL CHELAT?
L14
                 (METAL (W) CHELAT?)
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L6
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L7
              0 S L7 NOT PY>1997
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L9
           4485 S L2
L10
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L11
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             20 S L11 NOT PY>1996
L13
          14458 S METAL CHELAT?
L14
=> s 114 and 110
             3 L14 AND L10
=> d ibib 1-3
L15 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN
                         1998:271563 CAPLUS
ACCESSION NUMBER:
                         129:119669
DOCUMENT NUMBER:
                         Unsulfated DTPA- and DOTA-CCK analogs as specific
TITLE:
                         high-affinity ligands for CCK-B receptor-expressing
                         human and rat tissues in vitro and in vivo
                         Reubi, J. C.; Waser, B.; Schaer, J. C.; Laederach, U.;
AUTHOR(S):
                         Erion, J.; Srinivasan, A.; Schmidt, M. A.; Bugaj, J.
```

Institute of Pathology, Division of Cell Biology and

Experimental Cancer Research, University of Berne,

Switz.

European Journal of Nuclear Medicine (1998), 25(5), SOURCE:

481-490

CODEN: EJNMD9; ISSN: 0340-6997

PUBLISHER:

Springer-Verlag

DOCUMENT TYPE:

Journal English

LANGUAGE: REFERENCE COUNT:

THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS 26 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1993:163822 CAPLUS

DOCUMENT NUMBER:

118:163822

TITLE:

Rat kidney endopeptidase 24.16. Purification, physicochemical characteristics and differential specificity towards opiates, tachykinins and

neurotensin-related peptides

AUTHOR(S):

Barelli, Helene; Vincent, Jean Pierre; Checler,

Frederic

CORPORATE SOURCE:

Inst. Pharmacol. Mol. Cell., Univ. Nice Sophia

Antipolis, Valbonne, Fr.

SOURCE:

European Journal of Biochemistry (1993), 211(1-2),

79-90

CODEN: EJBCAI; ISSN: 0014-2956

DOCUMENT TYPE:

English LANGUAGE:

L15 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1981:419815 CAPLUS

DOCUMENT NUMBER:

95:19815

Journal

TITLE:

Degradation of cholecystokinin-like peptides by a crude rat brain synaptosomal fraction: a study by

high pressure liquid chromatography

AUTHOR(S):

Deschodt-Lanckman, Monique; Bui, Ngoc Diem; Noyer,

Michel; Christophe, Jean

CORPORATE SOURCE:

Med. Sch., Univ. Libre Bruxelles, Brussels, B-1000,

Belg.

SOURCE:

Regulatory Peptides (1981), 2(1), 15-30

CODEN: REPPDY; ISSN: 0167-0115

DOCUMENT TYPE:

LANGUAGE:

Journal English

=> d ibib kwic 2-3

L15 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1993:163822 CAPLUS '

DOCUMENT NUMBER:

118:163822

TITLE:

Rat kidney endopeptidase 24.16. Purification, physicochemical characteristics and differential specificity towards opiates, tachykinins and

neurotensin-related peptides

AUTHOR(S):

Barelli, Helene; Vincent, Jean Pierre; Checler,

Frederic

CORPORATE SOURCE:

Inst. Pharmacol. Mol. Cell., Univ. Nice Sophia

Antipolis, Valbonne, Fr.

SOURCE:

European Journal of Biochemistry (1993), 211(1-2),

79-90

CODEN: EJBCAI; ISSN: 0014-2956

DOCUMENT TYPE:

Journal

LANGUAGE:

English

Endopeptidase 24.16 was purified from rat kidney homogenate on the basis of its ability to generate the biol. inactive degradation products neurotensin (1-10) and neurotensin (11-13). On SDS gels of the proteins pooled after

the last purification step, the enzyme appeared homogeneous and behaved as a 70-kDa monomer. The peptidase was not sensitive to specific inhibitors of aminopeptidases, pyroglutamyl aminopeptidase I, endopeptidase 24.11, endopeptidase 24.15, proline endopeptidase and angiotensin-converting enzyme but was potently inhibited by several metal chelators such as o-phenanthroline and EDTA and was blocked by divalent cations. The specificity of endopeptidase 24.16 towards peptides of the tachykinin, opioid and neurotensin families was examined by competition expts. of tritiated neurotensin hydrolysis as well as HPLC anal. These results indicated that endopeptidase 24.16 could discriminate between peptides belonging to the same family. Neurotensin, Lys8-Asn9-neurotensin(8-13) and xenopsin were efficiently hydrolyzed while neuromedin N and kinetensin underwent little if any proteolysis by the peptidase. Analogously, substance P and dynorphins (1-7) and (1-8) were readily proteolyzed by endopeptidase 24.16 while neurokinin A, amphibian tachykinins and leucine or methionine enkephalins totally resisted degradation By Triton X-114 phase separation, 15-20% of endopeptidase 24.16 partitioned in the detergent phase, indicating that renal endopeptidase 24.16 might exist in a genuine membrane-bound form. The equipotent solubilization of the enzyme by 7 detergents of various critical micellar concns. confirmed the occurrence of a membrane-bound counterpart.of endopeptidase.24.16. Furthermore, the absence of release elicited by phosphatidylinositolspecific phospholipase C suggested that the enzyme was not attached by a glycosyl-phosphatidylinositol anchor in the membrane of renal microvilli. Finally, endopeptidase 24.16 could not be released from these membranes upon trypsinolysis.

TT 50-56-6, Oxytocin, biological studies 69-25-0, Eledoisin 113-79-1, [Arg8]vasopressin 2507-24-6, Physalaemin 9034-40-6, LHRH 24305-27-9, TRH 25126-32-3 31362-50-2, Bombesin 33507-63-0, Substance P 37213-49-3, α-Melanotropin 63968-82-1, Kassinin 86933-74-6, Neurokinin A 86933-75-7

RL: BIOL (Biological study)

(endopeptidase 24.16 of kidney microvillus specificity for)

L15 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1981:419815 CAPLUS

DOCUMENT NUMBER: 95:19815

TITLE: Degradation of cholecystokinin-like peptides by a

crude rat brain synaptosomal fraction: a study by

high pressure liquid chromatography

AUTHOR(S): Deschodt-Lanckman, Monique; Bui, Ngoc Diem; Noyer,

Michel; Christophe, Jean

CORPORATE SOURCE: Med. Sch., Univ. Libre Bruxelles, Brussels, B-1000,

Belg.

SOURCE: Regulatory Peptides (1981), 2(1), 15-30

CODEN: REPPDY; ISSN: 0167-0115

DOCUMENT TYPE: Journal LANGUAGE: English

Degradation of cholecystokinin-8 (CK-8), CCK-4, and related peptides by a crude synaptosomal fraction of rat brain was investigated by monitoring the tryptophan fluorescence of reaction products after HPLC fractionation. At 20°, the half disappearance time was 52 min for CCK-8, 35 min for unsulfated CCK-8, 20 min for unsulfated CCK-7, 6 min for Tyr(SO3H)-Trp-Met-Asp-Phe-NH2, and 3 min only for CCK-4. Caerulein was much more resistant than CCK-8, and Boc-CCK-4 (where Boc = tert-butoxycarbonyl) and Aoc-CCK-4 (where Aoc = tert-amyloxycarbonyl) remained stable for ≥3 h. The apparent Km for CCK-8 and CCK-4 was 40  $\mu\text{M}$  and maximal activity on CCK-8 was observed at pH 7.0. Zn2+ was strongly inhibitory. The protease inhibitors puromycin and bacitracin, the metal chelator 1,10-phenanthroline, and the SH blocking agents N-ethylmaleimide and p-chloromerlcuribenzoate greatly reduced the release of tryptophan from CCK-8. Puromycin inhibition of CCK-8 degradation provoked the accumulation of a CCK-7-like peptide, and that of CCK-4 degradation was of a competitive type (Ki = 2  $\mu$ M). The CCK-8-degrading activity of brain synaptosomes was present in the cytosol

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

Eligi

PATENT INFORMATION:

PATENT N	0.	KIND	DATE	APPLICATION NO.	DATE
WO 97316 WO 97316		A2 A3	19970904 19971023	WO 1997-US3056	19970225
₩:	CA, JP, (	JS			
RW:	AT, BE, (	CH, DE, I	DK, ES, FI,	FR, GB, GR, IE, IT,	LU, MC, NL, PT, SE
CA 22474	30	AA	19970904	CA 1997-2247430	19970225
EP 88501	7	A2	19981223	EP 1997-908751	19970225
R:	AT, BE,	CH, DE, I	DK, ES, FR,	GB, GR, IT, LI, LU,	NL, SE, MC, PT,
	IE, FI				
JP 20005	06141	Т2	20000523	JP 1997-531108	19970225
US 20041	85510	A1	20040923	US 2003-626229	20030724
PRIORITY APPL	N. INFO.			EP 1996-200498	A 19960227
				WO 1997-US3056	W 19970225
	•			US 1999-125823	B1 19990119

OTHER SOURCE(S): MARPAT 127:259530

L17 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1989:69756 CAPLUS

DOCUMENT NUMBER:

110:69756

TITLE:

Effects of cholecystokinin-octapeptide (CCK-8) on food

intake and gastric emptying in man

AUTHOR(S):

Muurahainen, Norma; Kissileff, Harry R.; Derogatis,

Andrew J.; Xavier Pi Sunyer, F.

CORPORATE SOURCE:

Coll. Physicians Surg., Columbia Univ., New York, NY,

-3.00

10025, USA

SOURCE:

Physiology & Behavior (1988), 44(4-5), 645-9

CODEN: PHBHA4; ISSN: 0031-9384

DOCUMENT TYPE:

LANGUAGE:

Journal English

=> d kwic 9

L17 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

AB . . . infusions of CCK-8 and saline on sep. nonconsecutive days after they had consumed 500 g of tomato soup tagged with technetium-99-DTPA. Intake of a test meal was measured 20 min after consumption of the soup whereas gastric emptying was simultaneously monitored. . .

IT 25126-32-3

RL: BIOL (Biological study)

(appetite and stomach emptying response to, in man)

=> file dissab

COST IN U.S. DOLLARS
SINCE FILE TOTAL
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FULL ESTIMATED COST
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INFLUENCIA DE LA COLECISTOKININA ENDOGENA EN EL VACIAMIENTO GASTRICO Y EN LA SECRECION POSPRANDIAL DE INSULINA EN EL

HOMBRE

AUTHOR:

HIDALGO GRAU, LUIS ANTONIO

CORPORATE SOURCE:

UNIVERSITAT AUTONOMA DE BARCELONA (SPAIN) (5852)

SOURCE:

Dissertation Abstracts International, (1993) Vol. 56, No. 1C, p. 157. Order No.: AARC391489 (not available for sale by UMI). SERVEI DE PUBLICACIONS DE LA UNIVERSITAT AUTONOMA DE BARCELONA, EDIFICI RECTORAT, APARTAT POSTAL 20, E-08193

BELLATERRA (BARCELONA), SPAIN.

ISBN: 84-7929-812-X.

DOCUMENT TYPE:

Dissertation .

FILE SEGMENT:

DAI

LANGUAGE:

Spanish

ENTRY DATE:

Entered STN: 19950321

Last Updated on STN: 19950321

### => d kwic 1-2

L20 ANSWER 1 OF 2 DISSABS COPYRIGHT (C) 2006 ProQuest Information and Learning Company; All Rights Reserved on STN

AB . . . of radioisotopes for physiological studies. Their use for the labelling of small compounds such as drugs has not been reported.

Cholecystokinin (CCK) is a hormone whose actions have been associated with satiety, and whose levels have been found to be abnormal.

. \$\sp{111}\$In or \$\rm \sp{99m}\$Tc using polyaminopolycarboxylic acid chelators is reported. The synthesis of disubstituted as opposed to monosubstituted EDTA and DTPA resulted from reaction of a model amine with the dianhydrides of EDTA and DTPA under various reaction conditions.

- L20 ANSWER 2 OF 2 DISSABS COPYRIGHT (C) 2006 ProQuest Information and Learning Company; All Rights Reserved on STN
- TI ENDOGENOUS CHOLECYSTOKININ MODULATES GASTRIC EMPTYING AND
  POSTPRANDIAL RELEASE OF INSULIN IN HUMANS
  INFLUENCIA DE LA COLECISTOKININA ENDOGENA EN EL VACIAMIENTO GASTRICO Y.
- AB Aim of the study. To determine the effect of endogenous cholecystokinin (CCK) on gastric emptying and postprandial release of insulin in humans.

Materials and method. Six healthy volunteers underwent three experiments.. . . liquid meal containing 100 g glucose, and an egg yolk mixed with 150 ml of milk. To evaluate gastric emptying, Tc99-DTPA (2 mCu) was added to the meal. To evaluate gallbladder emptying, Tc99-HIDA (5 mCu) was given i.v. one hour before. . .

=> s metal chelat?

34727 METAL

11101 METALS

40243 METAL

(METAL OR METALS)

4454 CHELAT?

L21

497 METAL CHELAT?

(METAL (W) CHELAT?)

=> d his

(FILE 'HOME' ENTERED AT 13:35:48 ON 07 DEC 2006)

FILE 'REGISTRY' ENTERED AT 13:36:14 ON 07 DEC 2006

L1 136 S DY'NLE'GW'NLE'DF/SQSP

L2 424 S DYMGWMDF/SQSP

FILE 'CAPLUS' ENTERED AT 13:39:00 ON 07 DEC 2006

L3

84 S L1

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              5 S DOTA AND L3
L6
         134722 S CHELAT?
             12 S L6 AND L3
L7
L8
              0 S L7 NOT PY>1997
              1 S L7 NOT PY>1998 '
L9
           4485 S L2
L10
             49 S L10 AND L6
L11
L12
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             20 S L11 NOT PY>1996
L13
          14458 S METAL CHELAT?
L14
              3 S L14 AND L10
L15
              4 S L10 AND (DPTA OR DOTA)
L16
L17
              9 S L10 AND DTPA
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L18
L19
            360 S DTPA OR DOTA
              2 S L19 AND L18
L20
L21
            497 S METAL CHELAT?
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L22
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    http://www.stn-international.de/stndatabases/details/ipc-reform.html >>>
>>> FOR CHANGES IN PCTFULL PLEASE SEE HELP CHANGE
    (last updated April 10, 2006) <<<
=> s cholecystokinin or (CCK-8 or CCK8 or (CCK () 8))
          1899 CHOLECYSTOKININ
           132 CHOLECYSTOKININS
          1949 CHOLECYSTOKININ
                  (CHOLECYSTOKININ OR CHOLECYSTOKININS)
          2003 CCK
            36 CCKS
          2007 CCK
                  (CCK OR CCKS)
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                  (CCK(W)8)
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         · 2003 CCK
            36 CCKS
          2007 CCK.
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(CCK OR CCKS)
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          255 CCK (W) 8
L23
          2006 CHOLECYSTOKININ OR (CCK-8 OR CCK8 OR (CCK (W) 8))
=> s DPTA or DOTA
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             1 DPTAS
           910 DPTA
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             5 DOTAS
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            10 L26 NOT PY>1996
L27
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      ANSWER 1 OF 10
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1.27
                        2001076631 PCTFULL
ACCESSION NUMBER:
      no bibliographic data available - please use FPI for PI information
DESIGNATED STATES
      ANSWER 2 OF 10
                         PCTFULL
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1.27
ACCESSION NUMBER:
                        1996040293 PCTFULL ED 20020514
TITLE (ENGLISH):
                        STRUCTURALLY DETERMINED METALLO-CONSTRUCTS AND
                        APPLICATIONS
TITLE (FRENCH):
                        METALLO-ASSEMBLAGES DETERMINES STRUCTURALEMENT ET
                        APPLICATIONS
INVENTOR(S):
                        SHARMA, Shubh, D.
                        RHOMED INCORPORATED;
PATENT ASSIGNEE(S):
                        SHARMA, Shubh, D.
LANGUAGE OF PUBL.:
                        English
DOCUMENT TYPE:
                        Patent
PATENT INFORMATION:
                        NUMBER
                                           KIND
                                                     DATE
                        ______
                                     ______
                        WO 9640293
                                             A1 19961219
DESIGNATED STATES
                        AL AM AT AU AZ BB BG BR BY CA CH CN CZ DE DK EE ES FI
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                        MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM
                        TR TT UA UG US UZ VN KE LS MW SD SZ UG AM AZ BY KG KZ
                        MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE IT LU MC
                        NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG
                        WO 1996-US9840
                                             A 19960606
APPLICATION INFO .:
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US 1995-8/476,652

PRIORITY INFO.:

19950607

US 1996-8/660,697 19960605

ANSWER 3 OF 10 PCTFULL COPYRIGHT 2006 Univentio on STN 1.27 1996039128 PCTFULL ED 20020514 ACCESSION NUMBER:

PROTEIN PARTICLES FOR THERAPEUTIC AND DIAGNOSTIC USE TITLE (ENGLISH):

PARTICULES PROTEIQUES A USAGE THERAPEUTIQUE ET TITLE (FRENCH):

DIAGNOSTIQUE

INVENTOR(S): YEN, Richard, C., K. HEMOSPHERE, INC.; PATENT ASSIGNEE(S): YEN, Richard, C., K.

LANGUAGE OF PUBL.: English DOCUMENT TYPE: Patent

PATENT INFORMATION:

NUMBER DATE KIND \_\_\_\_\_\_ WO 9639128 A1 19961212

DESIGNATED STATES

AL AM AT AU AZ BB BG BR BY CA CH CN CZ DE DK EE ES FI W: GB GE HU IL IS JP KE KG KP KR KZ LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG US UZ VN KE LS MW SD SZ UG AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE IT LU MC

NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG

APPLICATION INFO.: WO 1996-US9458 A 19960604 PRIORITY INFO.: US 1995-8/471,650 19950606 US 1995-8/554,919 19951109

COPYRIGHT 2006 Univentio on STN L27 ANSWER 4 OF 10 PCTFULL

ACCESSION NUMBER: 1995015118 PCTFULL ED 20020514

TITLE (ENGLISH): GAS MICROSPHERES FOR TOPICAL AND SUBCUTANEOUS

APPLICATION

MICROSPHERES GAZEUSES POUR APPLICATION TOPIQUE ET TITLE (FRENCH):

SOUS-CUTANEE

INVENTOR(S): UNGER, Evan, C.;

> MATSUNAGA, Terry; YELLOWHAIR, David UNGER, Evan, C.;

MATSUNAGA, Terry; YELLOWHAIR, David

LANGUAGE OF PUBL.: English DOCUMENT TYPE: Patent

PATENT INFORMATION:

PATENT ASSIGNEE(S):

NUMBER KIND DATE \_\_\_\_\_\_ A1 19950608 WO 9515118

DESIGNATED STATES

AU CA CN JP AT BE CH DE DK ES FR GB GR IE IT LU MC NL W:

PT SE

A 19941130 APPLICATION INFO .: WO 1994-US13817 . 19931130 PRIORITY INFO.: US 1993-8/159,674 US 1993-8/159,687 19931130 US 1993-8/160,232 19931130 US 1994-8/307,305 19940916

ANSWER 5 OF 10 L27

PCTFULL COPYRIGHT 2006 Univentio on STN

1995005842 PCTFULL ED 20020514 ACCESSION NUMBER:

METHOD AND DEVICE FOR TREATING GASTROINTESTINAL MUSCLE TITLE (ENGLISH):

DISORDERS AND OTHER SMOOTH MUSCLE DYSFUNCTION. PROCEDE ET DISPOSITIF POUR TRAITER LES TROUBLES

19941129

TITLE (FRENCH): MUSCULAIRES GASTRO-INTESTINAUX ET AUTRES

US 1994-8/346,426

DYSFONCTIONNEMENTS DES MUSCLES LISSES

PASRICHA, Pankaj, J.; INVENTOR(S): KALLOO, Anthony, N.

THE JOHNS HOPKINS UNIVERSITY PATENT ASSIGNEE(S):

DOCUMENT TYPE: Patent

PATENT INFORMATION:

DESIGNATED STATES

W:

CA JP AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE

APPLICATION INFO.: WO 1994-US9759 A 19940823 PRIORITY INFO.: US 1993-112,088 19930826

L27 ANSWER 6 OF 10 PCTFULL COPYRIGHT 2006 Univentio on STN

CHHAJLANI, Vijay

ACCESSION NUMBER: 1994004674 PCTFULL ED 20020513

TITLE (ENGLISH): HUMAN MELANOCYTE STIMULATING HORMONE RECEPTOR TITLE (FRENCH): RECEPTEUR D'HORMONE STIMULANT LE MELANOCYTE CHEZ

L'HOMME

INVENTOR(S): WIKBERG, Jarl; CHHAJLANI, Vijay

PATENT ASSIGNEE(S): WIKBERG, Jarl;

LANGUAGE OF PUBL.: English DOCUMENT TYPE: Patent

PATENT INFORMATION:

DESIGNATED STATES

W :

AU BB BG BR BY CA CZ FI HU JP KP KR KZ LK MG MN MW NO NZ PL RO RU SD SK UA US VN AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE

SN TD TG

APPLICATION INFO.: WO 1993-DK273 A 19930820 PRIORITY INFO.: DK 1992-1046/92 19920821 DK 1992-1118/92 19920910 DK 1993-528/93 19930505

L27 ANSWER 7 OF 10

PCTFULL COPYRIGHT 2006 Univentio on STN

ACCESSION NUMBER: 1993018797 PCTFULL ED 20020513

TITLE (ENGLISH): METHOD OF INTRAOPERATIVELY DETECTING AND LOCATING

TUMORAL TISSUES

TITLE (FRENCH): PROCEDE POUR DETECTER ET LOCALISER DE FACON

PEROPERATOIRE DES TISSUS TUMORAUX

INVENTOR(S):

ENSING, Geert, Jacob;
PANEK, Karel, Jan;
DOFDENS Bareld Jan

DOEDENS, Bareld, Jan

PATENT ASSIGNEE(S): MALLINCKRODT MEDICAL, INC.; ENSING, Geert, Jacob;

PANEK, Karel, Jan; DOEDENS, Bareld, Jan

LANGUAGE OF PUBL.: DOCUMENT TYPE:

English Patent

PATENT INFORMATION:

DESIGNATED STATES

W: AU CA JP US AT BE CH DE DK ES FR GB GR IE IT LU MC NL

PT SE

APPLICATION INFO.: WO 1993-US2772 A 19930324 PRIORITY INFO.: NL 1992-92200848.7 19920325

L27 ANSWER 8 OF 10

PCTFULL COPYRIGHT 2006 Univentio on STN

ACCESSION NUMBER: 1992004916 PCTFULL ED 20020513

TITLE (ENGLISH): PARTICULATE AGENTS

TITLE (FRENCH): AGENTS SOUS FORME DE PARTICULES

INVENTOR(S): FILLER, Aaron, Gershon

PATENT ASSIGNEE(S): ST. GEORGE'S ENTERPRISES LIMITED;

FILLER, Aaron, Gershon

LANGUAGE OF PUBL.: DOCUMENT TYPE:

English Patent

PATENT INFORMATION:

NUMBER KIND DATE ------WO 9204916 A2 19920402

DESIGNATED STATES

W: APPLICATION INFO.: PRIORITY INFO.:

AT AU BE CA CH DE DK ES FR GB GR IT JP LU NL NO SE US WO 1991-EP1780 A 19910913 GB 1990-9020075.9 19900914 GB 1990-9023580.5 19901030 GB 1990-9027293.1 19901217 GB 1991-9100233.7 19910107 GB 1991-9100981.1 19910116 GB 1991-9102146.9 19910131 GB 1991-9110876.1 19910520 GB 1991-9116373.3 19910730 GB 1991-9117851.7 19910819

ANSWER 9 OF 10

PCTFULL COPYRIGHT 2006 Univentio on STN

1992001469 PCTFULL ED 20020513 ACCESSION NUMBER:

TITLE (ENGLISH):

A COMPOSITION PROVIDING IMPROVED CLEARANCE OF BIOACTIVE

19910830

SUBSTANCES FROM THE BLOODSTREAM

TITLE (FRENCH):

COMPOSITION ASSURANT UNE MEILLEURE ELIMINATION DE

SUBSTANCES BIOACTIVES CONTENUES DANS LE SYSTEME SANGUIN

INVENTOR(S):

PATENT ASSIGNEE(S):

SELMER, Johan NOVO NORDISK A/S;

GB 1991-9118676.7

SELMER, Johan

LANGUAGE OF PUBL.:

DOCUMENT TYPE:

English Patent

PATENT INFORMATION:

KIND NUMBER DATE \_\_\_\_\_\_ A1 19920206 WO 9201469

DESIGNATED STATES

W:

AT AU BE CA CH CS DE DK ES FI FR GB GR HU IT JP KR LU

NL NO PL SE SU US

APPLICATION INFO.: PRIORITY INFO.:

WO 1991-DK215 DK 1990-1762/90 A 19910724 19900724

ANSWER 10 OF 10 L27

ACCESSION NUMBER:

1989009625 PCTFULL ED 20020513

TITLE (ENGLISH):

CONTRAST AGENTS FOR MAGNETIC RESONANCE IMAGING

TITLE (FRENCH):

AMELIORATIONS APPORTEES A L'IMAGERIE PAR RESONANCE

MAGNETIQUE

INVENTOR(S):

BERG, Arne;

KLAVENESS, Jo

PATENT ASSIGNEE(S):

COCKBAIN, Julian, Roderick, Michaelson;

PCTFULL COPYRIGHT 2006 Univentio on STN

NYCOMED AS; BERG, Arne; KLAVENESS, Jo

LANGUAGE OF PUBL.:

English Patent

DOCUMENT TYPE: PATENT INFORMATION:

> DATE NUMBER KIND \_\_\_\_\_ · A1 19891019 WO 8909625

DESIGNATED STATES

W:

AT AU BE CH DE DK FI FR GB IT JP LU NL NO SE US.

APPLICATION INFO.:

GB 1988-8808305.0

A 19890406

PRIORITY INFO.:

WO 1989-EP376

19880408

L27 ANSWER 10 OF 10 PCTFULL COPYRIGHT 2006 Univentio on STN

DETD

metal chelates, for example of aminopolycarboxylic acids such as nitrilotriacetic acid (NTA)j]NrNrN1rN'-ethylenediaminetetraacetic acid (EDTA), N-hydroxyethyl--N,N1,N1-ethylenediaminetriacetic acid (HEDTA)r NrNrN'r-N'',N''-diethylenetriaminepentaacetic acid (DTPA), and 1,4,7,10-tetraazacyclododecanetetraacetic acid (DOTA) (see for example EP-A-71564, EP-A-130934t DE-A-3401052 and US-A-4639365). and Nycomed AS have suggested the use of paramagnetic metal chelates of iminodiacetic acids (see. . .

Intravenous administration, at separate timesf of the positive contrast agent Gd DTPA-dimeglumine (which following such administration rapidly distributes extracellularly) and of superparamagnetic ferrite particles was proposed by Weissleder et al.'in AJR 150: 561-566 (1988) for imaging. . .

the reticuloendothelial system targetting negative contrast agents of W085/04330. However,, extracellularly distributing paramagnetic metal containing positive contrast agents, such as Gd DTPAF Gd DOTA and Od DTPA-BMA (the gadolinium chelate of the bismethylamide of DTPA), may be used according to the present invention for administration into body cavities or tracts having externally voiding ducts, e.g. for oral. . .

metal

chelates in which the paramagnetic metal species + 3+ especially Dy 3+ are particularly is Tb or Sm or more preferred, eag, Dy DTPA-BMAr, or DyDTPA-beta-alanine-dextran (molecular weight 70000) where a blood pooling positive contrast agent is desired.

EDTA; DTPA-BMA; DOTA; desferrioxamine; and the physiologically acceptable salts thereof.

contrast agent,

if uniform distribution after i.v. administration is desired, one may conveniently use as the chelating moiety a hydrophilic extracellular substance, such as DTPA or DOTA or a chelating agent as claimed in W089/00557. However, to achieve tissue- or duct-specificity, for either positive or negative MRI contrast agents. . .

the same equipment against distilled water to a volume of 1150 ml, the pH-was adjusted to 9 with N-methylmorpholine and 29.18g of DTPA-bis-anhydride was added while the pH was kept at 8 using the same base. When the solution became clear, the reaction mixture was. . .

Gd 4.6%; N 2.15%; Na 0.16%; Cl less than 0101%, 1 Free Gd (xylene orange titration), DTPA, GdDTPA? citric acid, or DMSO (HPLC): less than 0.01%

(The percentages in the analysis results are by weight).

in three of the dogs to which the positive and negative contrast agents were administered, 1.0 unit/kg bodyweight of cholecystokinin were given intravenously 60 minutes after administration of the paramagnetic contrast agent immediately followed by examinations in the transverse and frontal projections.

gall bladder was also encountered 15 to 30 minutes after contrast agent administration. After administration of the superparamagnetic and paramagnetic contrast agents and after cholecystokinin injection, the gall bladder was moderately contracted and visualization of the choledocus duct was achieved as well as contrast filling of the duodenum.

## => d ibib kwic 1-9

ANSWER 1 OF 10 COPYRIGHT 2006 Univentio on STN PCTFULL 1.27 2001076631 PCTFULL ACCESSION NUMBER: no bibliographic data available - please use FPI for PI information DESIGNATED STATES

37(4):449-57 [1997]; McHugh, PR. and Moran, TH., The stomach, DETD cholecystokinin, and satiety, Fed. Proc. 45(5):13 84-90 [1986]; Lin, H.C. et al., Frequency ofgastric pacesetter potential depends on volume and site of distension,. .

There may also be some interactions between 5-HT receptor-mediated effects and cholecystokinin-mediated effects on satiety. (Voight, J.P. et al., Evidencefor the involvement of the 5-HTIA receptor in CKK induced satiety in rats, Nauyn Schmiedebergs Arch. Pharmacol. 351(3):217-20 [1995]; Varga, G. et al., Effect of deramciclane, a new 5-HT receptor antagonist, on cholecystokinin -induced changes in ratgastrointesfinalfunction, Eur. J. Pharrnacol. 367(2-3):315-23 [1999]; but see, Eberle-Wang, K. and Simansky, K.J., Yhe CKK-A receptor antagonist, devazepide, blocks.

2 o Behav. 43(3):943-47 [1992]). The neuropeptide hormone cholecystokinin is known to induce satiety, inhibit gastric emptying, and to stimulate digestive pancreatic and gall bladder activity. (Blevins, J.E. et al., Brain regions where cholecystokinin suppresses feeding in rats, Brain Res. 860(1-2):1-10 [2000]; Moran, TH. and McHugh, Cholecystokinin suppressesfood intake by inhibiting gastric

emptying, Am. J. Physiol.

Cholecystokinin, and other neuropeptides, such as bombesin, arnylin, proopiomelanocortin, corticoptropin-releasing factor, galanin, melanin-concentrating hormone, neurotensin, agouti-related protein, leptin, and neuropeptide Y, are important 3.

```
G. et al., Effect of deramciclane, a new 5-HT receptor antagonist, on
      cholecystokinin-
       1 0 induced changes in rat gastrointestinalfunction, Eur. J. Pharmacol.
       367 (2-3):315-23
       [1999]), or alosetron. 5-HT4 receptor antagonists are preferably used at
       0 with phosphate buffer, pH 7.0, at 2 mL/min. 60 minutes after the start
      of the perfusion,
       5 1
      -20 [Xi of Tc-DTPA (diethylenetlianiinepentaacetic acid) was
      delivered as a bolus into
      the test segment. Intestinal transit was then measured by counting the
      radioactivity of.
       liquid marker across the approximately 150 cm intestinal test segment by
      delivering
       about 20 gCi 'Tc chelated to diethyltriamine pentaacetic acid (
       DTPA) (Cunningham,
       K.M. et al., Use of technicium-99m (V)thiocyanate to measure gastric
       emptying offat,
       J. Nucl. Med. 32:878-881 [1991]) as a bolus into the. . . gamma well
       counter. After correcting
      all counts to time zero, intestinal transit was calculated as the
       cumulative percent recovery
      of the delivered Tc-DTPA. This method has been well validated
      over the years and
       appreciated for its advantage of minimal inadvertent marker loss. To
       demonstrate.
                                  COPYRIGHT 2006 Univentio on STN
      ANSWER 2 OF 10
                        PCTFULL
ACCESSION NUMBER:
                        1996040293 PCTFULL ED 20020514
TITLE (ENGLISH):
                        STRUCTURALLY DETERMINED METALLO-CONSTRUCTS AND
                        APPLICATIONS
TITLE (FRENCH): ·
                       METALLO-ASSEMBLAGES DETERMINES STRUCTURALEMENT ET
                       APPLICATIONS
                        SHARMA, Shubh, D.
INVENTOR(S):
                        RHOMED INCORPORATED;
PATENT ASSIGNEE(S):
                        SHARMA, Shubh, D.
LANGUAGE OF PUBL.:
                        English
DOCUMENT TYPE:
                        Patent
PATENT INFORMATION:
                        NUMBER
                                          KIND
                                                    DATE
                        ______
                        WO 9640293
                                            A1 19961219
DESIGNATED STATES
                        AL AM AT AU AZ BB BG BR BY CA CH CN CZ DE DK EE ES FI
    · W:
                        GB GE HU IL IS JP KE KG KP KR KZ LK LR LS LT LU LV MD
                        MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM
                        TR TT UA UG US UZ VN KE LS MW SD SZ UG AM AZ BY KG KZ
                        MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE IT LU MC
                        NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG
APPLICATION INFO.:
                        WO 1996-US9840
                                            A 19960606
                      US 1995-8/476,652
                                                19950607
PRIORITY INFO.:
                        US 1996-8/660,697
                                                19960605
DETD
         . . or Cu., to an equirnolar covalent
       adduct of diethylenetriaminepentaacetic acid (DT?A) with
       ethylenediamine. This adduct
       may be achieved by reacting ethylenediamine with DTPA
       -dianhydride. The amino group
       of the ethylenediamine moiety in this adduct, together with the free
       carboxylate of the DTPA
```

(preferred dose range of 0 5 mg/kg), deramciclane (Varga,

moiety, mimic the two primary integrin receptor-binding functionalities. The use of higher hornologues of ethylenediarnine, or use of other di-amines, such as.

a reversed turn structure as their hypothesized biologically active structure. The exan3ples of these include various peptide hormones such as somatostatin, cholecystokinin, opioid peptides, melanotropins, luteinizing hormone releasing hormone, tachykinins and various antibody epitopes.

ANSWER 3 OF 10 PCTFULL COPYRIGHT 2006 Univentio on STN L27

1996039128 PCTFULL ED 20020514 ACCESSION NUMBER:

TITLE (ENGLISH): PROTEIN PARTICLES FOR THERAPEUTIC AND DIAGNOSTIC USE

TITLE (FRENCH): PARTICULES PROTEIQUES A USAGE THERAPEUTIQUE ET

DIAGNOSTIQUE

INVENTOR(S): YEN, Richard, C., K. PATENT ASSIGNEE(S): HEMOSPHERE, INC.;

YEN, Richard, C., K.

LANGUAGE OF PUBL.: English DOCUMENT TYPE: Patent

PATENT INFORMATION:

NUMBER KIND DATE \_\_\_\_\_\_ WO 9639128 A1 19961212

DESIGNATED STATES

W:

AL AM AT AU AZ BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU IL IS JP KE KG KP KR KZ LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG US UZ VN KE LS MW SD SZ UG AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG

APPLICATION INFO .: WO 1996-US9458 A 19960604 US 1995-8/471,650 PRIORITY INFO.:

19950606 19951109 US 1995-8/554,919

#### DETD . . . factor beta

# receptor

- 14. anti-beta-lipoprotein
- 15. alpha 2-macroglobulin
- 16. streptokinase
- 17. anti-progesterone antibody
- 18. anti-leukotriene B4 antibody
- 19. CGGRGDF-NH2
- 20. doxorubicin
- 21. daunarubicin
- 22. EDTA-conjugated to HSA
- 23. DTPA-conjugated to HSA
- 24. technetium
- 25. gadolinium
- 26. HSA conjugated to FITC (Fluorescein

Isothiocyanate)

27. HSA conjugated to TRITC (Tetramethylrhodamine B

isothiocyanate)

28. HSA conjugated to. . Tc99m can be achieved through direct covalent bonding or through a chelating agent. Examples of chelating agents are cysteine-cyclohexanol conjugate and DTPA

Biologically active peptides: myl-L-Ala-D-Glu Amide N-Acetyl-Asp-Glu 42

```
N-Acetyl-Cholecystokinin and its fragments
      N-Acetyl-Hirudin and its fragments
      Acetyl-Leu-Leu-Argininal
      N-Acetyl-Leu-Leu-Methioninal
      N-Acetyl-Leu-Leu-Norleucinal
      Acetyl-Met-Asp-Arg-Val-Leu-Ser-Arg-Tyr
      N-Acetyl-Met-Leu-Phe
      N-Acetylmuramyl-D-alanyl-D-isoglutamine
      N-Acetylmuramyl-L-alanyl-D-isoglutamine
      N-Acetylmuramyl-L-alanyl-L-isoglutamine
      N-Acetylmuramyl-Ala-D-isoglutaminyl-Ne-stearoyl-Lys
      N-Acetyl-Phe-Nle-Arg-Phe Amide
      Acetyl-Renin Substrate Tetradecapeptide
      Acetyl-Ser-Asp-Lys-Pro
      Acetyl-Ser-Gln-Asn-Tyr
      Acetyl-Ser-Gln-Asn-Tyr-Pro-Val-Val Amide.
       Carassin
      N-Carboxymethyl-Phe-Leu
       Cardioexcitatory Peptide
       alpha-Casein and fragments
       Beta-Casomorphin
      Na-CBZ-Arg-Arg-Pro-Phe-His-Sta-Ile-His-Ne-BOC-Lys Methyl
                                                                      Ester
              Ester
      CBZ-Leu-Val-Gly Diazomethyl Ketone
       N-CBZ-D-Phe-Phe-Gly
       N-CBZ-Pro-D-Leu
       N-CBZ-Pro-Leu-Gly Hydroxamate
       CD4 and fragments
       Cecropins
       Cerebellin
       Chemostactic Peptides
         Cholecystokinin and fragments
       Chorionic Gonadotropin and fragments
       Chromostatin-20
       Chymostatin
       Circumsporozoite (CS) Protein of Plasmodium falciparum
       repetitive sequences
       Collagen
       Conotoxin GI
       A-conotoxin GIIIB
       w-conotoxin GVIA
       a-conotoxin SI
       Copper.
       NITR7, DM-nitrophen, NITRS/AM; Ammonium N-
       nitrosophenyl-hydroxylamine; Ammonium purpurate;
       alpha-Benzoin oxime; N, N-Bis-(hydroxyethyl)-glycine;
       2,3-butane-dione dioxime; Trans-1,2-Diaminocyclo-
       hexanetetra-acetic acid (CDTA); Diethylene-
       triaminopenta-acetic acid (DTPA); 4,5-Dihydroxy-
       benzene-1,3-disulphonic acid; 2,3-Dimercapto-1-
       Propanol; Diphenylthio-carbazone; 2,2'-Dipyridyl;
       3,6-Disulpho-1,8-dihydroxy-naphthalene;
       Dithiooxamide; Eriochrome Black.T; Ethylene-diamine;
       Ethylenediaminetetraacetic acid (EDTA); (Ethylene-
       dioxy)-diethylenedinitrilo-tetraacetic acid (EGTA);
       o-Hydroxybenzaldehyde.
                                   COPYRIGHT 2006 Univentio on STN
       ANSWER 4 OF 10
                         PCTFULL
ACCESSION NUMBER:
                        1995015118 PCTFULL ED 20020514
                        GAS MICROSPHERES FOR TOPICAL AND SUBCUTANEOUS
TITLE (ENGLISH):
                        APPLICATION
```

MICROSPHERES GAZEUSES POUR APPLICATION TOPIQUE ET

L27

TITLE (FRENCH):

SOUS-CUTANEE

INVENTOR(S): UNGER, Evan, C.;

MATSUNAGA, Terry; YELLOWHAIR, David

PATENT ASSIGNEE(S):

UNGER, Evan, C.; MATSUNAGA, Terry; YELLOWHAIR, David

LANGUAGE OF PUBL.: DOCUMENT TYPE:

English Patent

PATENT INFORMATION:

NUMBER KIND DATE

WO 9515118

A1 19950608

DESIGNATED STATES

W:

AU CA CN JP AT BE CH DE DK ES FR GB GR IE IT LU MC NL

PT SE

APPLICATION INFO.: PRIORITY INFO.:

WO 1994-US13817 · A 19941130 US 1993-8/159,674 19931130 US 1993-8/159,687 19931130 US 1993-8/160,232 19931130 US 1994-8/307,305 19940916

US 1994-8/346,426

19941129

. . . of topical or

subcutaneous application and delivery: melanin concentrating hormone,, melanin stimulating hormone, trypsin inhibitor, Bowman Burk inhibitor, luteinizing hormone releasing hormone (LHRH), bombesin, cholecystokinin, insulin, gastrin, endorphins, enkephalins, growth hormone, prolactin, oxytocin, follicle stimulating hormone (FSH), human chorionic gonadotropin,, corticotropin, 0 and lipotropin, calcitonin, glucagon, thyrotropin, elastin, cyclosporin,.

Suitable chelants and chelating agents include, but are not limited to: penicillamine; citrate; ascorbate; diethylenetriaminepentaacetic acid (DTPA), and derivatives and salts thereof; dihydroxypropylethylenediamine (DPEA), and derivatives and salts thereof; cyclohexanediaminetetraacetic acid (CHTA), and derivatives and salts thereof; ethylenediaminetetraacetic acid (EDTA), and. . thereof; N,Nf-(1,2-ethanedivinylbis(oxy-2,1-phenylene))bis(N-(carboxymethyl) (BAPTA), and derivatives and salts thereof; aminophenol-triacetic acid (APTRA), and derivatives and salts thereof; tetrakis(2-pyridylmethyl)ethylenediamine (TPEN), and derivatives and salts thereof; 1.4,7,10-tetraazacyclodecane (DOTA) and derivatives and salts thereof; and cyanins and their derivatives, Furthermore, immunosuppressants or antiinflammatory preparations can be incorporated into the gas

These metal ions may be incorporated into the microspheres as free salts, as complexes, e,g., with EDTA, DTPA, DOTA desferrioxamine, or as oxides of the metal ions,

Additionally, derivatized complexes of the metal ions may be bound to lipid head groups,.

CLMEN. . . peptides selected from the group consisting of melanin concentrating hormone, melanin stimulating hormone, trypsin inhibitor, Bowman Burk inhibitor, luteinizing hormone releasing hormone, bombesin, cholecystokinin, insulin, gastrin, endorphins, enkephalins, growth hormone, prolactin, oxytocin, follicle stimulating hormone, human chorionic gonadotropin, corticotropin, 0-lipotropin, 7-lipotropin,

calcitonin, glucagon, thyrotropin, elastin, cyclosporin, and collagen, and.  $\cdot$ 

peptides selected from the group consisting of melanin concentrating hormone, melanin stimulating hormone, trypsin inhibitor, Bowman Burk inhibitor, luteinizing hormone releasing hormone, bombesin, cholecystokinin, insulin, 10 gastrin,, endorphins, enkephalins, growth hormone, prolactin, oxytocin, follicle stimulating hormone, human chorionic gonadotropin, corticotropin, fl-lipotropin, T-lipotropin, calcitonin, glucagon, thyrotropin, elastin, cyclosporin, and collagen, . . .

L27 ANSWER 5 OF 10 PCTFULL COPYRIGHT 2006 Univentio on STN

ACCESSION NUMBER: 1995005842 PCTFULL ED 20020514

TITLE (ENGLISH): METHOD AND DEVICE FOR TREATING GASTROINTESTINAL MUSCLE

DISORDERS AND OTHER SMOOTH MUSCLE DYSFUNCTION

TITLE (FRENCH): PROCEDE ET DISPOSITIF POUR TRAITER LES TROUBLES

MUSCULAIRES GASTRO-INTESTINAUX ET AUTRES DYSFONCTIONNEMENTS DES MUSCLES LISSES

INVENTOR(S): PASRICHA, Pankaj, J.;

KALLOO, Anthony, N.

DAMENM ACCIONES (C). THE TOUNG HODEING HALVES

PATENT ASSIGNEE(S): THE JOHNS HOPKINS UNIVERSITY

DOCUMENT TYPE: Patent

PATENT INFORMATION:

DESIGNATED STATES

W: CA JP AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE

APPLICATION INFO.: WO 1994-US9759 A 19940823 PRIORITY INFO.: US 1993-112,088 19930826

DETD Figs. 3A and B show the effect of intrasphincteric injection of BoTx on LES response to cholecystokinin octapeptide (CCK)

0.01). The response of the LES to the IV administration of edrophonium (Tensilon; ICN Pharmaceuticals Inc., Costa Mesa, CA) and cholecystokinin

octapeptide (CCK-8) (Kinevac; ER Squibb amp; Sons,

Princeton, NJ) in three

additional piglets was also measured. LES pressures, measured by a DENTSLEEVE, were. . .

retention studies

After an overnight fast, patients were asked to ingest a corn-flake meal with milk containing 0.531 mci 99 aiTc DTPA. Subsequently, serial dynamic

images were obtained with the subject sitting erect in front of a gamma camera.

Retention was expressed.

L27 ' ANSWER 6 OF 10 PCTFULL COPYRIGHT 2006 Univentio on STN

ACCESSION NUMBER: 1994004674 PCTFULL ED 20020513

TITLE (ENGLISH): HUMAN MELANOCYTE STIMULATING HORMONE RECEPTOR
TITLE (FRENCH): RECEPTEUR D'HORMONE STIMULANT LE MELANOCYTE CHEZ

L'HOMME

INVENTOR(S):
WIKBERG, Jarl;

CHHAJLANI, Vijay

PATENT ASSIGNEE(S): WIKBERG, Jarl; CHHAJLANI, Vijay

LANGUAGE OF PUBL.: English DOCUMENT TYPE: Patent

DOCUMENT TYPE: PATENT INFORMATION:

NUMBER KIND DATE

WO 9404674 A1 19940303

DESIGNATED STATES

· W:

AU BB BG BR BY CA CZ FI HU JP KP KR KZ LK MG MN MW NO NZ PL RO RU SD SK UA US VN AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE

SN TD TG

APPLICATION INFO.: WO 1993-DK273 A 19930820 PRIORITY INFO.: DK 1992-1046/92 19920821 DK 1992-1118/92 19920910 DK 1993-528/93 19930505

DETD . . . t

substance P receptor, substance K receptor, endothelin receptor, angiotensin receptor, chemoattractant peptide receptor, bombesin receptor, oxytocin receptor, vasopressin receptor, antidiuretic hormone receptor, gastrin receptor, cholecystokinin receptor, canabinoid receptor, follicle stimulating hormone receptor, luteinizing hormone receptor, growth hormone receptor, thyrotropin receptor, calcitonin receptor, calcitonin gene related peptide receptor and/or

isothiocyanatobenzyl EDTA (CITC), diethylenetriaminepenta-acetic acid (DTPA) and be coupled via the mixed anhydride or the cyclic anhydride (Hnatowich 1990). However, since such complexes may provide somewhat unstable chelation and moreover during their manufacture intra and intermolecular cross linking of antibodies, other chelators such as e.g. GYK-DTPA or SCN-Bz-DTPA may be used as an alternative (Hnatowich 1990). Radiolabelling of 99mTc to the antibody may be afforded by using direct labelling techniques. . .

L27 ANSWER 7 OF 10

parathyroid.

PCTFULL COPYRIGHT 2006 Univentio on STN "

ACCESSION NUMBER:

1993018797 PCTFULL ED 20020513

TITLE (ENGLISH):

METHOD OF INTRAOPERATIVELY DETECTING AND LOCATING

TUMORAL TISSUES

TITLE (FRENCH):

PROCEDE POUR DETECTER ET LOCALISER DE FACON

PEROPERATOIRE DES TISSUS TUMORAUX

INVENTOR(S):

ENSING, Geert, Jacob; PANEK, Karel, Jan; DOEDENS, Bareld, Jan

PATENT ASSIGNEE(S):

MALLINCKRODT MEDICAL, INC.;

ENSING, Geert, Jacob; PANEK, Karel, Jan; DOEDENS, Bareld, Jan

LANGUAGE OF PUBL.: DOCUMENT TYPE:

English Patent

PATENT INFORMATION:

NUMBER KIND DATE
-----WO 9318797 A1 19930930

DESIGNATED STATES

W:

AU CA JP US AT BE CH DE DK ES FR GB GR IE IT LU MC NL

PT SE

APPLICATION INFO.: PRIORITY INFO.:

WO 1993-US2772 A 19930324 NL 1992-92200848.7 19920325

DETD . . . thyroid-stimulating hormone,

vasoactive intestinal polypeptide, prolactin, thyrotropin-releasing hormone, insulin,

adrenocorticotropic hormone (ACTH), in particular o(--MSH

(melanocyte-stimulating

hormone) and f -(methylsulfonyl)-L- c4-aminobutyryl-L-d-glutamyl-L-histidyl-L-

O phenylaianyl-D-lysyl-L-phenylaianine, cholecystokinin, corticotropin-releasing hormone (CRH), growth hormone-releasing hormone (GRH), arginine and vasopressin, oxytocin, glucagon, secretin, parathyroid hormone (PTH) and related peptide. bond to an amino group of said peptide and is derived from ethylene diamine tetra-acetic acid (EDTA), ethylene triamine penta-acetic acid (DTPA), ethyleneglycol-0,0'-bis(2aminoethyl)-N,N,N',N'-tetra-acetic acid (EGTA), N,N-bis(hydroxybenzyl)ethylenediamine-N, N'-diacetic acid (HBED), triethylene tetramine hexa-acetic. acid (TTHA), 1,4,7,10-tetraazacyclododecane-N,N',N,N'-tetra-acetic acid (DOTA), 1 8,11-tetra-azacyclotetradecane-NN',N,N'-tetra-acetic (TETA),, 1 diaminocyclohexane tetra-acetic acid (DCTA), substituted substituted EDTA, or from a compound of the general formula -R-S ] Y wherein R is a branched or non-branched, optionally substituted hydrocarbyl radical,. A, Preparation of DTPA-Octreotide kit The DTPA-Octreotide kit formulated on basis of sodium acetate buffer with the final composition 3,89 mg sodium acetate 0,029 mg acetic acid 10 gg DTPA-Octreotide per vial is prepared as follows. To formulate the kit, 0,5 mg of DTPA-Octreotide is dissolved in 4 ml of acetic acid solution, and 5 ml of sodium acetate solution are added. In a similar way, starting from 2.5 mg DTPA-Octreotide was also prepared and a kit containing 50gg DTPA-Octreotide per vial. C, Labelling of DTPA-Octreotide kit with Tb Several kits of DTPA-Octreotide, prepared according to Example I containing 10 or 50 gg DTPA-Octreotide, are labelled by addition of 0.5 ml of Tb-161 solution obtained under B. The mixture is incubated for 30 min. at room temperature. ITLC as described above, Tb DTPA-Octreotide Rf ca 0 0.6 Free Tb-161 Rf ca 0,9 0 Hydrolysed Tb-161 Rf ca 0 0,1 HPLC: Column: gBondapakBC 18 10pn, 3.9 x.

h - HPLC 96.2%

HPLC identification positive, because UV spectrum and activity peaks of Tb-161 are found identical with those for In-III labelled DTPA-Octreotide used as control.

#### EXAMPLE 11

Labelling of DTPA-Octreotide kit with Yb-175 and its use in combination with detectincr agent DTPA I-Tvr'-Octreotide A. Labellincf of DTPA-Octreotide kit with Yb Ca 1 mg of enriched (97.8%) 174-Yb2O2 is irradiated for 48 hours in a nuclear reactor with thermal. . .

Several kits containing 10 gg of DTPA-Octreotide prepared according to Example I are labelled by addition of I ml of the Yb-175 stock solution. The mixture is let to-incubate  $30.\ .\ .$ 

Yb-175 Octreotide: LY at 3 ho ITLC Rf 0 06 91,2% at 24 h. ITLC Rf 0,5-06 91,7% B, Preiparation of DTPA 125-Tyr3-Octreotide.

DTPA-Tyr3-Octreotide of the formula DTPA- (D) Phe-Cys -Tyr\*- (D) Trp-Lys -Thr-Cys -Throl is prepared from Tyr3-Octreotide in a corresponding manner as described in Int, Pat, Appln, WO. . . Example 1, and further iodinated with 125I sodium iodide, dissolved in phosphate buffer in the presence of chloramine T. The molar ratio of DTPA-Tyr3-Octreotide; chloramine T: 125-I is 1:4,6:0,6 The reaction is terminated with 10% BSA solution. The labelled product of the above formula wherein Tyr] = . . .

To combine the therapeutical effect with the radioguided surgery are used both preparations; Yb Octreotide for the desired therapeutic effect and DTPA I-Tyr 3\_Octreotide as the detectingu agent, Depending on the conditions, they can be used separately, in this case by administering Yb Octreotide first to cause partial or deep tumour necrosis, followed by administration of DTPA I-Tyr3-Octreotide to guide the tumours removal, or they can be administered simultaneously as a mixture in an appropriate ratio. Such a mixture. . .

## EXAMPLE III

Labelling of DTPA-Octreotide kit with Ho-166 and its use in combination with Octreotide labelled with Tb

A. Labelling of DTPA-Octreotide kit with Ho 6Ca 1 mg of natural (monoisotopic) 165-Ho2O3 is irradiated for 48 hours in nuclear reactor with a thermal. . .

Several kits, containing lOgg of DTPA-Octreotide prepared according to Example I., are labelled by addition of 0.5 or 1 ml of Ho-166 stock solution. The mixture is let. . .

Labelled Ho Octreotide 9111%
Free Ho-166 8,9%
B. Pre-oaration of DTPA-Tb Octreotide as described in Example I., with kit containing 50 Ltq DTPA-Octreotide.

CLMEN. . . amide bond to an amino group of said peptide and being derived from ethylene diamine tetra-acetic acid (EDTA), diethylene triamine penta-acetic acid (DTPA), ethyleneglycol-0,01-bis(2-aminoethyl)-N,N,N',N'-tetra-acetic acid (EGTA), N,N.bis(hydroxybenzyl)-

ethylenediamine-N,N'-diacetic acid (HBED), triethylene tetramine hexa-acetic acid (TTHA), 1,4,7,10-tetraazacyclododecane-N,N,N,Nf-tetra-acetic acid (DOTA),, 1 8,,11-tetra-azacyclotetradecane-N,N',N,N'-tetra-(TETA), 1,2-diaminocyclohexane tetra-acetic acid (DCTA), substituted substituted EDTA, or from a compound of the general formula wherein R is a branched or non-branched, optionally substituted hydrocarbyl radical, which may be.

ANSWER 8 OF 10 PCTFULL ACCESSION NUMBER: 1992004916 PCTFULL ED 20020513 TITLE (ENGLISH): PARTICULATE AGENTS TITLE (FRENCH):

AGENTS SOUS FORME DE PARTICULES

FILLER, Aaron, Gershon INVENTOR(S):

PATENT ASSIGNEE(S): ST. GEORGE'S ENTERPRISES LIMITED;

FILLER, Aaron, Gershon

LANGUAGE OF PUBL.: English ' Patent

DOCUMENT TYPE: PATENT INFORMATION:

> NUMBER KIND DATE WO 9204916 A2:19920402

DESIGNATED STATES

W: APPLICATION INFO .: PRIORITY INFO.:

AT AU BE CA CH DE DK ES FR GB GR IT JP LU NL NO SE US · WO 1991-EP1780 A 19910913 GB 1990-9020075.9 19900914 GB 1990-9023580.5 19901030 GB 1990-9027293.1 19901217 GB 1991-9100233.7 19910107 GB 1991-9100981.1 19910116 GB 1991-9102146.9 19910131 GB .1991-9110876.1 19910520 GB 1991-9116373.3 19910730 GB 1991-9117851.7 19910819 GB 1991-9118676.7 19910830

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Paramagnetic contrast agents such as gadolinium-DETD DTPA act primarily by altering T, relaxation rates.

> its ease of use as a histocheiAcal marker. Other studies have demonstrated transport of a wide variety of substances including Vasoactive Intestinal Polypeptide (VIP),

cholecystokinin, substance P and somatostatin, neuropeptide-Y, and adriamycin. These types of tracers have sometimes been introduced by intravenous injection with subsequent uptake by neurons.

The use of a magnetic resonance small molecule contrast agent such as gadolinium-DTPA (diethylenetriaminepentaacetic acid) required the introduction of a very high concentration into the nerve and this amount was beyond what could be achieved,.

6) A wide variety of peptides and small proteins such as endorphins, vasoactive intestinal polypeptide, calcitonin gene-related peptide, cholecystokinin, substance P, somatostatin, and neuropeptide Y or the relevant portions of such peptides for the encouragement - 53

of neuronal uptake and transport.

Additional types of agents for imaging include paramagnetic metal chelates of polychelants (e.g. polylysine gadolinium-DTPA 40 which uses the macromolecularlparticulate aspects of uptake to introduce groups of paramagnetic nuclei (40 Gd atoms per molecule) (see EP-A-305320, EP-A-357622, EP-A-355097, EP-A-331616,. . .

27 ANSWER 9 OF 10 PCTFULL COPYRIGHT 2006 Univentio on STN

ACCESSION NUMBER: 1992001469 PCTFULL ED 20020513

TITLE (ENGLISH): A COMPOSITION PROVIDING IMPROVED CLEARANCE OF BIOACTIVE

SUBSTANCES FROM THE BLOODSTREAM

TITLE (FRENCH): COMPOSITION ASSURANT UNE MEILLEURE ELIMINATION DE

SUBSTANCES BIOACTIVES CONTENUES DANS LE SYSTEME SANGUIN

INVENTOR(S): SELMER, Johan

PATENT ASSIGNEE(S): NOVO NORDISK A/S;

SELMER, Johan

LANGUAGE OF PUBL.: English
DOCUMENT TYPE: Patent

DOCUMENT TYPE:
PATENT INFORMATION:

NUMBER KIND DATE

WO 9201469 A1 19920206

DESIGNATED STATES

W: AT AU BE CA CH CS DE DK ES FI FR GB GR HU IT JP KR LU

NL NO PL SE SU US

APPLICATION INFO.: WO 1991-DK215 A 19910724 PRIORITY INFO.: DK 1990-1762/90 19900724

DETD . . radioimaging leukocytes by injecting a conjugate of an antibody reactive with a leukocyt6 surface molecule and a radioisotope chelated with an EDTA or DTPA derivative followed by the injection of an antibody against the conjugate in order to clear the conjugate/antibody complex through the reticuloendothelial system.. . .

hormone,,; follicle-Stimulating hormone,, luteinising hormoner adrenocorticotropic hormone, parathyroidea hormone, prolactin, lipotropin J, cholecystokinin, calcitonin, secretin, atrialnatriuretic factor, endothelin, vasoactive intestinal polypeptider transferrin, tachykinin Intercellular adhesion factors intercellular adhesion molecule 1, endothelial leukocyte. . .

=> octapeptide
OCTAPEPTIDE IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

```
1500 OCTAPEPTIDE
          238 OCTAPEPTIDES
          1631 OCTAPEPTIDE
L28
                 (OCTAPEPTIDE OR OCTAPEPTIDES) .
=> s 128 and (DTPA or DOTA)
          5576 DTPA
            12 DTPAS
          5579 DTPA
                 (DTPA OR DTPAS)
          1767 DOTA
             5 DOTAS
          1768 DOTA
                 (DOTA OR DOTAS)
L29
            86 L28 AND (DTPA OR DOTA)
=> s 129 not py>1996
        935225 PY>1996
L30
           15 L29 NOT PY>1996
=> s 130 and CCK
          2003 CCK
            36 CCKS
          2007 CCK
                 (CCK OR CCKS)
L31
             1 L30 AND CCK
=> d ibib
      ANSWER 1 OF 1
                         PCTFULL COPYRIGHT 2006 Univentio on STN
                        1995005842 PCTFULL ED 20020514
ACCESSION NUMBER:
TITLE (ENGLISH):
                        METHOD AND DEVICE FOR TREATING GASTROINTESTINAL MUSCLE
                        DISORDERS AND OTHER SMOOTH MUSCLE DYSFUNCTION
                        PROCEDE ET DISPOSITIF POUR TRAITER LES TROUBLES
TITLE (FRENCH):
                        MUSCULAIRES GASTRO-INTESTINAUX ET AUTRES
                        DYSFONCTIONNEMENTS DES MUSCLES LISSES
                        PASRICHA, Pankaj, J.;
INVENTOR(S):
                        KALLOO, Anthony, N.
                        THE JOHNS HOPKINS UNIVERSITY
PATENT ASSIGNEE(S):
DOCUMENT TYPE:
                        Patent
PATENT INFORMATION:
                        NUMBER
                                          KIND
                        _____
                        WO 9505842
                                          A1 19950302
DESIGNATED STATES
                        CA JP AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE
      W:
                                         A 19940823
APPLICATION INFO .:
                       WO 1994-US9759
                        US 1993-112,088
                                               19930826
PRIORITY INFO.:
=> d kwic
       ANSWER 1 OF 1
                         PCTFULL
                                   COPYRIGHT 2006 Univentio on STN
L31
DETD
       Figs. 3A and B show the effect of intrasphincteric injection of BoTx on
       LES response to cholecystokinin octapeptide (CCK)
       The response of the LES to the IV administration of edrophonium
       (Tensilon; ICN Pharmaceuticals Inc., Costa Mesa, CA) and cholecystokinin
         octapeptide (CCK-8) (Kinevac; ER Squibb amp; Sons,
       Princeton, NJ) in three
       additional piglets was also measured. LES pressures, measured by a
```

DENTSLEEVE, were recorded in response to IV edrophonium (5 mg). After a

SUBSTITUTE SHEET (RULE 26)

=> s octapeptide

```
Subsequently, BoTx was injected into the LES, as described above, and
       the
       experiment was. .
       Intrasphincteric BoTx also altered the response of the LES to
       (Figure 3). In untreated piglets, CCK did not cause any
       significant change in
       LES pressure. However, after intrasphincteric BoTx injection, a
       significant
       increase in LES pressure was seen in response to CCK. It
       should be noted that
       despite what was felt to be an adequate washout period (10 minutes) in
       between
       injections, basal. . . .
       retention studies
       After an overnight fast, patients were asked to ingest a corn-flake meal
       with milk containing 0.531 mci 99 aiTc DTPA. Subsequently,
       serial dynamic
       images were obtained with the subject sitting erect in front of a gamma
       camera.
       Retention was expressed.
=> d his
     (FILE 'HOME' ENTERED AT 13:35:48 ON 07 DEC 2006)
     FILE 'REGISTRY' ENTERED AT 13:36:14 ON 07 DEC 2006
            136 S DY'NLE'GW'NLE'DF/SQSP
L1
            424 S DYMGWMDF/SQSP
L2
     FILE 'CAPLUS' ENTERED AT 13:39:00 ON 07 DEC 2006
L3
             84 S L1
L4
              0 S DPTA AND L3
L5
              5 S DOTA AND L3
L6
         134722 S CHELAT?
L7
             12 S L6 AND L3
L8
              0 S'L7 NOT PY>1997
L9
              1 S L7 NOT PY>1998
           4485 S L2
L10
             49 S L10 AND L6
L11
             20 S L11 NOT PY>1997
L12
L13
             20 S L11 NOT PY>1996
          14458 S METAL CHELAT?
L14
              3 S L14 AND L10
L15
L16
              4 S L10 AND (DPTA OR DOTA)
L17
              9 S L10 AND DTPA
     FILE 'DISSABS' ENTERED AT 13:46:43 ON 07 DEC 2006
L18
            323 S CHOLECYSTOKININ OR (CCK-8 OR CCK8 OR (CCK () 8)).
L19
            360 S DTPA OR DOTA
L20
              2 S L19 AND L18
L21
            497 S METAL CHELAT?
L22
              0 S L21 AND L18
     FILE 'PCTFULL' ENTERED AT 13:50:53 ON 07 DEC 2006
L23
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L24
           2224 S DPTA OR DOTA
           6121 S DTPA OR DÓTA
L25
            110 S L25 AND L23
L26
L27
            10 S L26 NOT PY>1996
```

washout period of 10 minutes, CCK (5 µ g IV) was then

administered.

```
L28
           1631 S OCTAPEPTIDE
L29
            86 S L28 AND (DTPA OR DOTA)
L30
             15 S L29 NOT PY>1996
             1 S L30 AND CCK
L31
=> s 123 and chelat?
         44321 CHELAT?
           591 L23 AND CHELAT?
L32
=> s 132 and (radio? or imag?)
        190519 RADIO?
        202203 IMAG?
           495 L32 AND (RADIO? OR IMAG?)
L33
=> s 133 not py>1996
       935225 PY>1996
           34 L33 NOT PY>1996
=> d his
     (FILE 'HOME' ENTERED AT 13:35:48 ON 07 DEC 2006)
     FILE 'REGISTRY' ENTERED AT 13:36:14 ON 07 DEC 2006
L1
            136 S DY'NLE'GW'NLE'DF/SQSP
L2
            424 S DYMGWMDF/SQSP
     FILE 'CAPLUS' ENTERED AT 13:39:00 ON 07 DEC 2006
L3
             84 S L1
L4
              0 S DPTA AND L3
              5 S DOTA AND L3
L5
L6
         134722 S CHELAT?
          . 12 S L6 AND L3
L7
             0 S L7 NOT PY>1997
L8
L9
              1 S L7 NOT PY>1998
L10
           4485 S L2
             49 S L10 AND L6
L11
             20 S L11 NOT PY>1997
L12
L13
             20 S L11 NOT PY>1996
L14
          14458 S METAL CHELAT?
L15
              3 S L14 AND L10
L16
              4 S L10 AND (DPTA OR DOTA)
L17
              9 S L10 AND DTPA
     FILE 'DISSABS' ENTERED AT 13:46:43 ON 07 DEC 2006
L18
           323 S CHOLECYSTOKININ OR (CCK-8 OR CCK8 OR (CCK () 8))
L19
            360 S DTPA OR DOTA
L20
              2 S L19 AND L18
L21
            497 S METAL CHELAT?
            0 S L21 AND L18
L22
     FILE 'PCTFULL' ENTERED AT 13:50:53 ON 07 DEC 2006
           2006 S CHOLECYSTOKININ OR (CCK-8 OR CCK8 OR (CCK () 8))
L23
L24
           2224 S DPTA OR DOTA
L25
           6121 S DTPA OR DOTA
L26
           110 S L25 AND L23
            10 S L26 NOT PY>1996
L27
L28
           1631 S OCTAPEPTIDE
L29
            86 S L28 AND (DTPA OR DOTA)
L30
             15 S L29 NOT PY>1996
L31
             1 S L30 AND CCK
L32
            591 S L23 AND CHELAT?
L33
            495 S L32 AND (RADIO? OR IMAG?)
             34 S L33 NOT PY>1996
L34
```

=> d ibib 1-8

PCTFULL COPYRIGHT 2006 Univentio on STN L35 ANSWER 1 OF 8

1996039161 PCTFULL ED 20020514 ACCESSION NUMBER:

MULTI-TYROSINATED SOMATOSTATIN ANALOGS TITLE (ENGLISH):

ANALOGUES DE LA SOMATOSTATINE CONTENANT PLUSIEURS DE TITLE (FRENCH):

TYROSINES

COY, David, H.; INVENTOR(S):

> WOLTERING, Eugene, A.; O'DORISIO, M., Sue; O'DORISIO, Thomas, M.;

MURPHY, William, A.

THE ADMINISTRATORS OF THE TULANE EDUCATIONAL FUND ; PATENT ASSIGNEE(S):

> THE OHIO STATE UNIVERSITY RESEARCH FOUNDATION; THE LOUISIANA STATE UNIVERSITY MEDICAL CENTER

FOUNDATION;

CHILDREN'S HOSPITAL, INC.

LANGUAGE OF PUBL.:

DOCUMENT TYPE: PATENT INFORMATION: English Patent

NUMBER KIND DATE \_\_\_\_\_\_

A1 19961212 WO 9639161

DESIGNATED STATES

AL AM AT AU AZ BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU IL IS JP KE KG KP KR KZ LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG UZ VN KE LS MW SD SZ UG AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL

PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG

APPLICATION INFO .:

US 1995-8/462,223 PRIORITY INFO.:

A 19960603 19950605

L35 ANSWER 2 OF 8

ACCESSION NUMBER: TITLE (ENGLISH):

COPYRIGHT 2006 Univentio on STN PCTFULL 1.994023724 PCTFULL ED 20020513

MEMBRANE-PERMEANT SECOND MESSENGERS

MESSAGERS SECONDAIRES S'INFILTRANT DANS LA MEMBRANE TITLE (FRENCH):

CELLULAIRE

INVENTOR(S):

TSIEN, Roger, Y.; SCHULTZ, Carsten

WO 1996-US8437

PATENT ASSIGNEE(S):

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA

LANGUAGE OF PUBL.: DOCUMENT TYPE:

PATENT INFORMATION:

English Patent

NUMBER KIND DATE

WO 9423724

A1 19941027

DESIGNATED STATES

AU BB BG BR BY CA CN CZ FI HU JP KP KR KZ LK LV MG MN MW NO NZ PL RO RU SD SI SK UA UZ VN AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN

ML MR NE SN TD TG

APPLICATION INFO.: PRIORITY INFO.:

TITLE (ENGLISH):

TITLE (FRENCH):

WO 1994-US3889 US 1993-45,585

A 19940408 19930409

ANSWER 3 OF 8 L35

ACCESSION NUMBER:

COPYRIGHT 2006 Univentio on STN PCTFULL

1994022444 PCTFULL ED 20020513

TRICYCLIC COMPOUNDS FOR INHIBITING PLATELET AGGREGATION COMPOSES TRICYCLIQUES UTILISES POUR INHIBER

L'AGREGATION PLAQUETTAIRE

INVENTOR(S):

CALLAHAN, James, Francis;

HUFFMAN, William, F.

PATENT ASSIGNEE(S):

SMITHKLINE BEECHAM CORPORATION;

CALLAHAN, James, Francis;

HUFFMAN, William, F.

LANGUAGE OF PUBL .: English DOCUMENT TYPE: Patent .

PATENT INFORMATION:

NUMBER KIND DATE \_\_\_\_\_\_

WO 9422444

A1 19941013

DESIGNATED STATES

W:

JP US AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE

APPLICATION INFO .: WO 1994-US3383 A 19940329 PRIORITY INFO.: US 1993-8/038,382 19930329

ANSWER 4 OF 8 L35

PCTFULL COPYRIGHT 2006 Univentio on STN

1993008842 PCTFULL ED 20020513 ACCESSION NUMBER:

TITLE (ENGLISH): HEMOGLOBINS AS DRUG DELIVERY AGENTS

TITLE (FRENCH): HEMOGLOBINES UTILISEES COMME AGENTS ADMINISTRATEURS DE

MEDICAMENTS

English

Patent

INVENTOR(S):

ANDERSON, David, C.; MATHEWS, Antony, James

PATENT ASSIGNEE(S):

SOMATOGEN, INC.; ANDERSON, David, C.; MATHEWS, Antony, James

LANGUAGE OF PUBL.:

DOCUMENT TYPE:

PATENT INFORMATION:

NUMBER KIND DATE

-----

WO 9308842

A1 19930513

DESIGNATED STATES

W:

AT AU BB BG BR CA CH CS DE DK ES FI GB HU JP KP KR LK LU MG MN MW NL NO PL RO RU SD SE UA US AT BE CH DE DK ES FR GB GR IE IT LU MC NL SE BF BJ CF CG CI CM GA GN

ML MR SN TD TG

APPLICATION INFO .: PRIORITY INFO.:

WO 1992-US9713 A 19921106 US 1991-789,177 19911108 US 1991-789,179 19911108

L35 ANSWER 5 OF 8

ACCESSION NUMBER: TITLE (ENGLISH): TITLE (FRENCH):

INVENTOR(S):

PCTFULL COPYRIGHT 2006 Univentio on STN

1993000095 PCTFULL ED 20020513 BICYCLIC FIBRINOGEN ANTAGONISTS

ANTAGONISTES BICYCLIQUES DE FIBRINOGENE

BONDINELL, William, Edward; CALLAHAN, James, Francis; HUFFMAN, William, Francis; KEENAN, Richard, McCulloch;

KU, Thomas, Wen-Fu;

NEWLANDER, Kenneth, Allen

SMITHKLINE BEECHAM CORPORATION; PATENT ASSIGNEE(S):

> BONDINELL, William, Edward; CALLAHAN, James, Francis; HUFFMAN, William, Francis; KEENAN, Richard, McCulloch;

KU, Thomas, Wen-Fu;

NEWLANDER, Kenneth, Allen

LANGUAGE OF PUBL.:

DOCUMENT TYPE:

English

Patent PATENT INFORMATION:

NUMBER

KIND DATE

WO 9300095

A2 19930107

DESIGNATED STATES

W:

AU CA JP KR US AT BE CH DE DK ES FR GB GR IT LU MC NL

SE

APPLICATION INFO.:

WO 1992-US5463

A 19920626

PRIORITY INFO .: US 1991-723,009 19910628

L35 ANSWER 6 OF 8 PCTFULL COPYRIGHT 2006 Univentio on STN ACCESSION NUMBER: 1991019733 PCTFULL ED 20020513

DERIVATIVES OF TETRAPEPTIDES AS CCK AGONISTS TITLE (ENGLISH):

DERIVES DE TETRAPEPTIDES EN TANT QU'AGONISTES DE TITLE (FRENCH):

CHOLECYSTOKININE INVENTOR(S): SHIOSAKI, Kazumi; NADZAN, Alex, M.; KOPECKA, Hana; SHUE, Youe-Kona;

> HOLLADAY, Mark, W.; LIN, Chun, W.; NELLANS, Hugh, N.

PATENT ASSIGNEE(S): ABBOTT LABORATORIES

LANGUAGE OF PUBL.: English DOCUMENT TYPE: Patent PATENT INFORMATION:

NUMBER KIND DATE -----WO 9119733 A1 19911226

DESIGNATED STATES

AT BE CA CH DE DK ES FR GB GR IT JP LU NL SE W:

APPLICATION INFO.: WO 1991-US4458 A 19910620 PRIORITY INFO.: US 1990-541,230 19900620 US 1991-713,010 19910614

PCTFULL COPYRIGHT 2006 Univentio on STN L35 ANSWER 7 OF 8 ACCESSION NUMBER: 1990006937 PCTFULL ED 20020513

TITLE (ENGLISH): DERIVATIVES OF TETRAPEPTIDES AS CCK AGONISTS DERIVES DE TETRAPEPTIDES UTILISES COMME AGENTS TITLE (FRENCH):

REPRODUISANT L'ACTIVITE DE LA CCK

INVENTOR(S): SHIOSAKI, Kazumi;

NADZAN, Alex, M.; KOPECKA, Hana; SHUE, Youe-Kong

ABBOTT LABORATORIES; PATENT ASSIGNEE(S):

SHIOSAKI, Kazumi; NADZAN, Alex, M.; KOPECKA, Hana; SHUE, Youe-Kong

LANGUAGE OF PUBL.: English DOCUMENT TYPE: Patent

NUMBER KIND DATE \_\_\_\_\_

WO 9006937 Al 19900628

DESIGNATED STATES

PATENT INFORMATION:

BE CH DE ES FR GB IT JP NL SE US W: APPLICATION INFO.: WO 1989-US5673 A 19891218 PRIORITY INFO.: US 1988-287,955 19881221

ANSWER 8 OF 8 PCTFULL COPYRIGHT 2006 Univentio on STN L35

1990006128 PCTFULL ED 20020513 ACCESSION NUMBER: METHODS AND COMPOSITIONS FOR INHIBITING PLATELET TITLE (ENGLISH):

AGGREGATION

METHODES ET COMPOSITIONS POUR INHIBER L'AGREGATION DES TITLE (FRENCH):

PLAQUETTES

INVENTOR(S): MARAGANORE, John, M.;

JAKUBOWSKI, Joseph, A.

PATENT ASSIGNEE(S): BIOGEN, INC.;

TRUSTEES OF BOSTON UNIVERSITY

LANGUAGE OF PUBL.: English

DOCUMENT TYPE: Patent

PATENT INFORMATION:

NUMBER KIND DATE \_\_\_\_\_ WO 9006128 Al 19900614 DESIGNATED STATES DK FI HU JP KR NO W: APPLICATION INFO.: WO 1989-US849 A 19890302 PRIORITY INFO.: US 1988-280,618 19881205 => s 135 and cck 2003 CCK 36 CCKS 2007 CCK (CCK OR CCKS) 5 L35 AND CCK L36 => d ibib 1-5 PCTFULL COPYRIGHT 2006 Univentio on STN L36 ANSWER 1 OF 5 1996039161 PCTFULL ED 20020514 ACCESSION NUMBER: MULTI-TYROSINATED SOMATOSTATIN ANALOGS TITLE (ENGLISH): ANALOGUES DE LA SOMATOSTATINE CONTENANT PLUSIEURS DE TITLE (FRENCH): TYROSINES INVENTOR(S): COY, David, H.; WOLTERING, Eugene, A.; O'DORISIO, M., Sue; O'DORISIO, Thomas, M.; MURPHY, William, A. PATENT ASSIGNEE(S): THE ADMINISTRATORS OF THE TULANE EDUCATIONAL FUND ; THE OHIO STATE UNIVERSITY RESEARCH FOUNDATION; THE LOUISIANA STATE UNIVERSITY MEDICAL CENTER FOUNDATION; CHILDREN'S HOSPITAL, INC. LANGUAGE OF PUBL.: English DOCUMENT TYPE: Patent PATENT INFORMATION: NUMBER KIND DATE \_\_\_\_\_ WO 9639161 A1 19961212 DESIGNATED STATES W: PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG APPLICATION INFO.: WO 1996-US8437 A 19960603

AL AM AT AU AZ BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU IL IS JP KE KG KP KR KZ LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG UZ VN KE LS MW SD SZ UG AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL

PRIORITY INFO.: 19950605 US 1995-8/462,223

L36 ANSWER 2 OF 5 PCTFULL COPYRIGHT 2006 Univentio on STN 1994023724 PCTFULL ED 20020513 ACCESSION NUMBER: TITLE (ENGLISH): MEMBRANE-PERMEANT SECOND MESSENGERS

MESSAGERS SECONDAIRES S'INFILTRANT DANS LA MEMBRANE TITLE (FRENCH):

CELLULAIRE

INVENTOR(S): TSIEN, Roger, Y.; SCHULTZ, Carsten

PATENT ASSIGNEE(S): THE REGENTS OF THE UNIVERSITY OF CALIFORNIA LANGUAGE OF PUBL.: English

DOCUMENT TYPE: Patent PATENT INFORMATION:

> NUMBER KIND DATE WO 9423724 A1 19941027

DESIGNATED STATES

W: AU BB BG BR BY CA CN CZ FI HU JP KP KR KZ LK LV MG MN

MW NO NZ PL RO RU SD SI SK UA UZ VN AT BE CH DE DK ES . FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG APPLICATION INFO.: WO 1994-US3889 A 19940408 US 1993-45,585 19930409 PRIORITY INFO.: PCTFULL COPYRIGHT 2006 Univentio on STN ANSWER 3 OF 5 ACCESSION NUMBER: 1993008842 PCTFULL ED 20020513 HEMOGLOBINS AS DRUG DELIVERY AGENTS TITLE (ENGLISH): HEMOGLOBINES UTILISEES COMME AGENTS ADMINISTRATEURS DE TITLE (FRENCH): MEDICAMENTS ANDERSON, David, C.; INVENTOR(S): MATHEWS, Antony, James PATENT ASSIGNEE(S): SOMATOGEN, INC.; ANDERSON, David, C.; MATHEWS, Antony, James LANGUAGE OF PUBL.: English DOCUMENT TYPE: Patent PATENT INFORMATION: DATE NUMBER KIND \_\_\_\_\_ WO 9308842 A1 19930513 DESIGNATED STATES W: AT AU BB BG BR CA CH CS DE DK ES FI GB HU JP KP KR LK LU MG MN MW NL NO PL RO RU SD SE UA US AT BE CH DE DK ES FR GB GR IE IT LU MC NL SE BF BJ CF CG CI CM GA GN ML MR SN TD TG WO 1992-US9713 A 19921106 APPLICATION INFO.: US 1991-789,177 19911108 PRIORITY INFO.: US 1991-789,179 19911108 PCTFULL COPYRIGHT 2006 Univentio on STN ANSWER 4 OF 5 ACCESSION NUMBER: . 1991019733 PCTFULL ED 20020513 DERIVATIVES OF TETRAPEPTIDES AS CCK AGONISTS TITLE (ENGLISH): DERIVES DE TETRAPEPTIDES EN TANT QU'AGONISTES DE TITLE (FRENCH): CHOLECYSTOKININE SHIOSAKI, Kazumi; INVENTOR(S): NADZAN, Alex, M.; KOPECKA, Hana; SHUE, Youe-Kona; HOLLADAY, Mark, W.; LIN, Chun, W.; NELLANS, Hugh, N. ABBOTT LABORATORIES PATENT ASSIGNEE(S): LANGUAGE OF PUBL.: English DOCUMENT TYPE: Patent PATENT INFORMATION: NUMBER KIND DATE WO 9119733 A1 19911226 DESIGNATED STATES W: AT BE CA CH DE DK ES FR GB GR IT JP LU NL SE APPLICATION INFO.: WO 1991-US4458 A 19910620 US 1990-541,230 19900620 PRIORITY INFO.: US 1991-713,010 19910614 ANSWER 5 OF 5 PCTFULL COPYRIGHT 2006 Univentio on STN 1990006937 PCTFULL ED 20020513 ACCESSION NUMBER: DERIVATIVES OF TETRAPEPTIDES AS CCK AGONISTS TITLE (ENGLISH): DERIVES DE TETRAPEPTIDES UTILISES COMME AGENTS TITLE (FRENCH): REPRODUISANT L'ACTIVITE DE LA CCK INVENTOR(S): SHIOSAKI, Kazumi;

> NADZAN, Alex, M.; KOPECKA, Hana; SHUE, Youe-Kong

L36

PATENT ASSIGNEE(S): ABBOTT LABORATORIES;

SHIOSAKI, Kazumi; NADZAN, Alex, M.; KOPECKA, Hana; SHUE, Youe-Kong

LANGUAGE OF PUBL.: English DOCUMENT TYPE: Patent

PATENT INFORMATION:

DESIGNATED STATES

W: BE CH DE ES FR GB IT JP NL SE US APPLICATION INFO.: WO 1989-US5673 A 19891218 PRIORITY INFO.: US 1988-287,955 19881221

=> d ibib kwic 5

L36 ANSWER 5 OF 5 PCTFULL COPYRIGHT 2006 Univentio on STN

ACCESSION NUMBER: 1990006937 PCTFULL ED 20020513

TITLE (ENGLISH): DERIVATIVES OF TETRAPEPTIDES AS CCK AGONISTS
TITLE (FRENCH): DERIVES DE TETRAPEPTIDES UTILISES COMME AGENTS

REPRODUISANT L'ACTIVITE DE LA CCK

INVENTOR(S): SHIOSAKI, Kazumi;

NADZAN, Alex, M.; KOPECKA, Hana; SHUE, Youe-Kong

PATENT ASSIGNEE(S): ABBOTT LABORATORIES;

SHIOSAKI, Kazumi; NADZAN, Alex, M.; KOPECKA, Hana; SHUE, Youe-Kong

LANGUAGE OF PUBL.: English
DOCUMENT TYPE: Patent

PATENT INFORMATION:

NUMBER KIND DATE
-----WO 9006937 A1 19900628

DESIGNATED STATES

W: BE CH DE ES FR GB IT JP NL SE US
APPLICATION INFO.: WO 1989-US5673 A 19891218
PRIORITY INFO.: US 1988-287,955 19881221

TIEN DERIVATIVES OF TETRAPEPTIDES AS CCK AGONISTS

TIFR DERIVES DE TETRAPEPTIDES UTILISES COMME AGENTS REPRODUISANT L'ACTIVITE DE LA CCK

ABEN Tetrapeptide analogs are disclosed which possess CCK agonist activity.

ABFR Les analogues de tetrapeptides decrits possedent une activite similaire a la cholecystokinine (CCK).

DETD DERTVATIVES OF-TETRAPEPTIDES AS CCK AGONISTS
This is a continuation-in-part of U.S. Patent
Application Serial No. 287,955, filed December 21, 1988.

Technical Field

The present invention relates to novel organic compounds and compositions which mimic the effects of cholecystokinin, caerulein and gastrin, processes for making such compounds, synthetic intermediates employed in these processes and a method for treating gastrointestinal disorders, central nervous.

Backaround of thp Tnvention

Cholecystokinin (CCK) is a 39 amino acid polypeptide hormone. CCK and a 33 amino acid fragment of CCK (CCK 33)

were first isolated from hog intestine (Mutt and jorpes, Biochem. ]L, 12, Ij 628 (1981)). Recently the CCK 33 fragment has been found in the brain, where it appears to be the precursor of two smaller fragments, an octapeptide CC]K8 and a tetrapeptide CCK 4 (Dockray, Nature 264 402 (1979)).

Existence of these fragments in the cortex of the brain suggests that CCK may be an important neuromodulator of memory, learning and control of the primary sensory and motor functions. CCK and it-s fragments are believed to play an important role in appetite regulation and satiety (Della-Ferat Science 206 471 (1979); Saito et. . . Eating and it-s Disorders, eds.,

Raven Pressr New Yorkf 67 (1984)). Recently,, patients with bulimia were shown to have lower than normal CCK levels in their plasma-(Geracioti, et al., New England Journal of Medici=, 3\_12 683 (1988)). An additional role for CCK in the periphery is to regulate the release of insulin., CCK has been shown to increase the levels of insulin when administered to mammals (Rushakoff, et al., J. Clin. Endocrinol, Metab. 65 395. . .

C-terminal fragments of CCK have recently been reported to function as CCK receptor antagonists (Jensen et al Biochem. Biophys. Acta, 757, 250 (1983); Spanarkel, J. Biol. Chem. ZUt 6746 (1983)). Japanese patent application 45/10506 to. . .

In contrast, the present invention relates to tetrapeptide analogs-which function as agonists of CCK activity, CCK agonists are useful in the treatment and prevention of CCK-related disorders of the gastrointestinal, appetite (obesity and bulimia, among others) and insulin regulatory systems of animals, especially man. CCK agonists are also useful as central nervous system suppressants which can exhibit antipsychotic, neuroleptic, anxiolytic, and anti-convulsant effects, among other effects on.

## the Drawinas

Figure I is a plot comparing the mean level of liquid food intake (mls) for rats after chronic administration of vehicle, CCK-8 (10 nmol/kg), or the compound of Example

180 (1 nmol/kg or 10 nm/kg).

Figure 2 is a plot comparing the mean change in body weight (grams) for rats after chronic administration of vehicle, CCK-8 (10 nmol/kg), or the compound of Example 180 (1 nmol/kg or 10 nm/kg), Summary of the Invention

In accordance with the present invention there are cholecystokinin agonists of the formula.

IL 1981, p 617) wherein the Boc or Cbz protected amino acid is treated with a base in the presence of a chelating agent such

as a crown ether and then quenched with methyl iodide.

found: C 61.11r H 6.50F. N 10.89,

The compounds of formula I are CCKagonists which are useful in the treatment and prevention of CCK-related disorders of the gastrointestinal, central nervous, and appetite and insulin regulatory systems of animals and humans. As CCK agonists, they are useful in the treatment and prevention of neuroleptic disorders, tardive dyskinesiat disorders of memory and cognition, Parkinson's disease, Huntington's chorea, . .

The ability of the compounds of the invention to interact with CCK receptors and to act as CCK agonists can be demonstrated ja vitro using the following protocols.

CCK8 [Asp-Tyr(SO 3H)-Met-Gly-Trp-Met-Asp-Phe-NH2], bestatin and phosphoramidon were purchased from Peptide International (Louisville, KY), EGTAr HEPES and BSA were purchased from Sigma Chemical Co.

(St. Louis,, MO), 125 11 - Bolton-Hunter (BH-CCK (specific activity, 2200 Ci/mmol) was obtained from New England Nuclear (Boston, MA). Male guinea pigs, 250 to 32S g, were obtained from Scientific Small Animal Laboratory and Farm (Arlington Heights, IL). Collagenase, code CLSPA was purchased from Worthington (Frehold, New Jersey) Protocol For Radioligand Binding Experiments in Guinea Pig Cerebral Cortical and Pancreatic Membrane PreT) arations Cortical and pancreatic membranes were prepared as described (Lin and Miller; J, Pharmacol, . . .

Incubation Conditions
1 125 I]Bolton-Hu-nter CCK and test compounds were
8
diluted with HEPES-EGTA-salt buffer (see above) containing
0.5% bovine serum albumin (BSA). To 1 mL Skatron
polystyrene tubes were added 25 uL of test compounds, 25 uL
of [ 125 IJBH-CCK and 200 uL of membrane suspension. The
8
final BSA concentration was 0.1%. The cortical tissues
were incubated at 300C for 150 min.. . . . 37'C for 150 min.
Incubations were
terminated by filtration using Skatron Cell Harvester and
SS32 microfiber filter mats. The specific binding of
125
I IIBH-CCK 8. defined as the difference between

binding in the absence and presence of 1 uM CCK., was 85-90% of total binding in cortex and 90-95% in pancreas. IC 50 s were determined from the Hill analysis. The results. . .

Table 1
125 1aaQ7'Q'L125
Compound of I-BH-CCK 8 I-BH-CCK8
Example Pancreas Cortex
30 270
12 680
10 732
26 238
71 1480
26 1800
32 114
45 35 4700
4 7 50 4 000
4 9 4 1 815

The results indicate that compounds of the invention possess selective affinity for the pancreatic  $\mathsf{CCK}$  receptors.

Amylase Assay

After the 30 min incubation time, the acini was resuspended in 100 volumes of KRH-BSA buffer, containing 3 uM phosphoramidon and 100 uM bestatin. While stirring, 400 uL of acini were added to 1.5 mL microcentrifuge tubes containing 50 uL of CCK., buffer, or test compounds. The final assay volume was 500 uL. Tubes were vortexed and placed in a 37'C waterbathf under 100%. . .

TABLE 2
Cgmipound of Example Amylase rele=r.---M.4aIIL
5
3
40
80
24
157 ill
180 0.74
The results indicate that compounds of the invention are CCK agonists.

Measurement of PlasMa Insulin in Mice Following Treatment With CCK or a CCK Aaonist
Male mice, 20-30 g. were used in all experiments. The animals were fed with laboratory lab chow and water ad libitum. CCK8 or the CCK agonist compound of this invention was injected into the tail vein. Two minutes later, the animals were sacrificed and the blood was collected.

10,000 x g for 2 minutes. The insulin levels were determined in the supernatant, i,e,, plasma, by RIA using kits obtained from Radioassay Systems Laboratory (Carson, CA.) or Novo Biolabs (Danbury, CT.).

Agonists On Insulin Secretion in Nice % Increase In Insulin Dose Secretion versus Com-pound of Examr)le (nmole/kcr) ]alinC Control 157 10 41 100 112 180 100 238 CCK8 3 65 10 85 30 90 100 70 The results indicate that compounds of the invention stimulate insulin secretion in yjy.Q.

CCK8 3.0 nmol/mouse 106 10.0 nmol/mouse 157 30.0 nmol/mouse 180 1.0 nmol/mouse The results of these tests indicate that compounds of the invention suppress locomotor activity. food intake. Five minutes prior to their one hour free feeding (Purina Rat Chow), the animals were injected (i,p,) with either vehicle, CCK the compound of Example 106. The amount of food consumed was measured after subtraction of spillage. The results of this test are. AdMinistration of CCK Agonists Compound Dose Mean Food Intake vehicle ... 9,40 grams C-CK 20 ug/kg 6.56 grams Example 106 1,0 mg/kg 3.49 grams Example 106 3.0 mg/kg. When a compound of formula I is used as an agonist of CCK or gastrin in a human subject, the total daily dose administered in single or divided doses may be in amounts, for example,. CLMEN 5 A method for mimicking the effects of CCK on CCK receptors comprising administering to a host in need of such treatment a therapeutically effective amount of a compound of Claim 1, 7 A CCK agonist composition comprising a pharmaceutical carrier and a therapeutically effective amount of a compound of Claim 1. => s CCK and (DOTA or DTPA) 2003 CCK 36 CCKS 2007 CCK (CCK OR CCKS) 1767 DOTA 5 DOTAS 1768 DOTA (DOTA OR DOTAS) 5576 DTPA 12 DTPAS 5579 DTPA (DTPA OR DTPAS) 79 CCK AND (DOTA OR DTPA) 935225 PY>1996 5 L37 NOT PY>1996

=> s 137 not py>1996 L38

=> d ibib kwic 1-5

L37

COPYRIGHT 2006 Univentio on STN L38 ANSWER 1 OF 5 PCTFULL 1996005861 PCTFULL ED 20020514 ACCESSION NUMBER: TITLE (ENGLISH): COMPOSITIONS AND METHODS FOR THE TREATMENT OF BODY WEIGHT DISORDERS, INCLUDING OBESITY COMPOSITIONS ET PROCEDES DE TRAITEMENT DES TROUBLES TITLE (FRENCH): INHERENTS AU POIDS CORPOREL, DONT L'OBESITE TARTAGLIA, Louis, A.

INVENTOR(S):

MILLENIUM PHARMACEUTICALS, INC. PATENT ASSIGNEE(S):

English LANGUAGE OF PUBL.: DOCUMENT TYPE: Patent

PATENT INFORMATION:

NUMBER KIND WO 9605861 A1 19960229

DESIGNATED STATES

W: AU CA JP AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT

WO 1995-US10918 A 19950823 APPLICATION INFO .: 19940823 US 1994-294,522 PRIORITY INFO.: US 1995-470,868 19950606

DETD . . These include but are not limited to the intracellular domain of receptors for such hormones as neuropeptide Y, galanin, interostatin, insulin, and CCK. Total genomic or cDNA sequences are fused to the DNA encoding an activation domain. This library and a plasmid encoding a hybrid of.

Eu, or others of the lanthanide series. These metals can be attached to the antibody using such metal chelating groups as diethylenetriaminepentacetic acid (DTPA) or ethylenediaminetetraacetic acid (EDTA).

PCTFULL COPYRIGHT 2006 Univentio on STN ANSWER 2 OF 5 L38

ACCESSION NUMBER:

1995024426 PCTFULL ED 20020514

TITLE (ENGLISH): A NOVEL EXPRESSION-CLONING METHOD FOR IDENTIFYING

TARGET PROTEINS FOR EUKARYOTIC TYROSINE KINASES AND

NOVEL TARGET PROTEINS

NOUVEAU PROCEDE D'EXPRESSION-CLONAGE UTILISE POUR TITLE (FRENCH):

IDENTIFIER DES PROTEINES A CIBLES DES TIROSINE-KINASES

EUKARYOTES, ET NOUVELLES PROTEINES CIBLES

SCHLESSINGER, Joseph; INVENTOR(S):

SKOLNIK, Edward, Y.; MARGOLIS, Benjamin, L. NEW YORK UNIVERSITY

PATENT ASSIGNEE(S): LANGUAGE OF PUBL.:

PATENT INFORMATION:

English

Patent

DOCUMENT TYPE:

KIND NUMBER

WO 9524426 A1 19950914

DESIGNATED STATES

AM AU BB BG BR BY CA CN CZ EE FI GE HU JP KE KG KR KZ W :

LK LR LT LV MD MG MN MW MX NO NZ PL RO RU SD SG SI SK TJ TT UA UZ VN KE MW SD SZ UG AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR

NE SN TD TG

APPLICATION INFO.: WO 1995-US3385 A 19950313

PRIORITY INFO.: US 1994-208,887 19940311

. lanthanide series. These metals can be attached to the DETD peptide probe or anti-target protein antibody using such metal chelating groups as diethylenetriaminepentaacetic acid (DTPA) or ethylenediaminetetraacetic acid (EDTA).

> know how to vary the aonrorrlate is parameters without undue ex-oerimentation. Furthermore, general methods in this area are set- forth in Sa:L=cck et al - (sunra) Materials of which solid phase carrier can be made include, but are not limited to, nitrocellulose,

cellulose, paner, substituted polystyrenes, acrylonitriles,.

L38 ANSWER 3 OF 5 PCTFULL COPYRIGHT 2006 Univentio on STN

ACCESSION NUMBER:

1995024225 PCTFULL ED 20020514 POLYCHELANTS

TITLE (ENGLISH): TITLE (FRENCH):

INVENTOR(S):

POLYCHELATEURS MARGERUM, Lawrence; CARVALHO, Joan; GARRITY, Martha;

FELLMANN, Jere, Douglas

PATENT ASSIGNEE(S): NYCOMED SALUTAR, INC.;

COCKBAIN, Julian, Roderick, Michaelson;

MARGERUM, Lawrence; CARVALHO, Joan; GARRITY, Martha;

FELLMANN, Jere, Douglas

LANGUAGE OF PUBL.: DOCUMENT TYPE:

English Patent

PATENT INFORMATION:

NUMBER KIND DATE

WO 9524225

A1 19950914

DESIGNATED STATES

AM AT AU BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU JP KE KG KP KR KZ LK LR LT LU LV MD MG MN MW MX NL NO NZ PL PT RO RU SD SE SG SI SK TJ TT UA UG US UZ VN KE MW SD SZ UG AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN'TD TG

APPLICATION INFO.: PRIORITY INFO.:

WO 1995-GB464 A 19950303 GB 1994-9404208.2 19940304

Thus, Krejcarek et al (supra) disclosed how polyaminopolycarboxylic acid (PAPCA) chelants, specifically DTPA (diethylenetriaminepentaacetic acid) could be conjugated to a protein, such as human serum. albumin (HSA), by reaction of the triethylamine salt of the PAPCA.

> Unger et al. in Investigative Radiology 20:693 (1985) analyzed tumor enhancement for magnetic resonance imaging using an anti-CEA monoclonal antibody conjugated with Gd-DTPA. They found no tumor enhancement when 4 Gd atoms were bound per antibody molecule, and predicted that a far greater ratio of.

Thus Hnatowich et al, (supra) used the cyclic anhydride of the chelant DTPA to attach it to a protein.

has thus been used to produce bifunctional polychelants in which the chelant moieties are residues of open chain PAPCAs, such as EDTA and DTPA, and in which the backbone molecule is a polyamine such as polylysine or polyethyleneimine.

Thus for example Manabe et al. in Biochemica et Biophysica Acta 883: 460-467 (1986) reported attaching up to 105 DTPA residues onto a poly-L-lysine backbone using the cyclic anhydride method and also attaching polylysine-polyDTPA polychelants onto monoclonal antibody (anti-HLA IgGj) using a 2-pyridyl disulphide linker achieving a substitution of up to about 42.5 chelants (DTPA resi]\_-:-.-]s) per site-specific macromolecule. Torcrilin et al. in Hybridoma 6:229-240 (1987) also reported attaching DTPA and EDTA to

polyethyleneimine and polylysine backbones which were then attached to a myosin-specific monoclonal antibody, or its Fab fragment, to produce bifunctional polychelants. . .

chelant moieties in the polychelants of the invention may be residues of any of the conventional macrocyclic chelants such as for example DOTA, TETA, DO3A. etc, The macrocyclic skeleton, as mentioned above, preferably has 9 to 25 ring members and conveniently is an optionally oxygen or. . . pendent groups which participate in metal chelation, for example C1-6alkyl groups carrying hydroxyl, amino, phosphonate, or phosphinate or more preferably carboxyl groups. DO3A and DOTA derived macrocycles are especially preferred, i.e. groups of formula HOOC--\F-] X]--COOH HOOC--\F7 /-COOH
N N-] and [-N
EN N N N

Exemplary polyazacycloalkanepolycarboxylates include 1 7,10-tetraazacyclododecanetetraacetic acid (DOTA), 1,4,7,10-tetraazacyclododecane 4,7-triacetic acid (DO3A), 1-oxa-4,7,10-triazacyclododecanetriacetic acid (DOXA), 1,4,7-triazacyclononanetriacetic acid (NOTA) and 1 8,11-tetraazacyclotetradecanetetraacetic acid (TETA), Additionally, the novel tetraazacycloalkanepolycarboxylates, DOTA-N(2-aminoethyl)amide and DOTA-N(4-aminophenethyl)amide are also contemplated, The preparation of the tetraazacycloalkanepolycarboxylate ligands is well known. Synthesis of DOTA is described in U.S. Patent No. 4,647,447 (Gries et al.), U.S. Patent No, 4,639,365 (Sherry) and by Desreux et al.

in Inorg. Chem. 19:1319 (1980). Additionally, DOTA is available commercially from Parish Chemical Co,, Orem, UT, USA. Preparation of D03A is described in EP-A-292689 (Squibb). Desreux, Inorg. Chem., 19:1319. . . al, Inorg. Chem, 26:3458 (1987) and Meares et al, Acc. Chem. Res., 17:202 (1984) describe the properties and chemistry of the macrocyclic ligands DOTA, NOTA, TETA and their backbone-derivatized analogues, including the preparation of NOTA and TETA.

U.S. Patent No, 4,678,667 (Meares et al.) teaches the preparation of a number of macrocyclic, side chain-derivatized ligands including DOTA and TETA.

Derivatization of DOTA to form DOTA -N(2-aminoethyl)amide and DOTA-N(4-aminophenethyl)amide is described in detail hereinafter in Examples 2 and 3, respectively, The above cited references and all other references mentioned herein are hereby. . .

be taken with the lanthanide ions to maintain the pH below 8 to avoid precipitation of the metal hydroxide. Metal incorporation into DOTA derived and related macrocylic chelant moieties will normally be a slow process, as described in the references cited below. Specific examples of the. . . .

Med., 3:808 (1986) and WO-A-87/06229 describe

incorporation of Gd(III) into DOTA. A method of preparing Bi and Pb complexes of DOTA is described by Kumar et al, J. Chem. Soc. Chem. Commun., 3:145 (1989).

reduction of 99Tc with Sn in the presence of a weakly coordinating ligand such as glucoheptonate prior to complexation with chelants such as DOTA. These methods are well known in the radiopharmaceutical art 67CU utilizes tetraamine chelates such as tet A or tet B (see Bhardared).

CCK and hexapeptides), proteins (such as lectins, asialofetuin, polyclonal IgG, blood clotting proteins (e.g. hirudin), lipoproteins and glycoproteins), hormones, growth factors, and clotting factors.

In general, known methods can be used to join the macrocyclic chelants to backbone molecules. While for preferred macrocyclic chelants, such as DOTA, the conventional mixed anhydride and cyclic anhydride conjugation techniques are ineffective, it has been found that.modifying the mixed anhydride procedure by reacting a polycarboxylic.

For macrocycles with a pendant carboxylate, including but not limited to DOTA, TETA, TRITA (1,4,7,10tetraazacyclotridecanetetraacetic acid) and NOTA, one of the carboxylates can form an entity which can react with a primary amine group.

linked to a

backbone molecule through a non-coordinating primary amine group. Macrocyclic chelants having a noncoordinating primary amine group include primary amine side-chain-derivatized DOTA macrocycles, primary aminederivatized DO3A, and primary amine-derivatized hexaaza and octaaza macrocycles and macrobicycles (the HAMs.

for example, physiologically biocompatible buffers (as for example, tromethamine hydrochloride), additions (e,g,, 0.01 to 10 mole percent) of chelants (such as, for example, DTPA, DTPA

bisamide or non-complexed magnifier polychelant) or calcium chelate complexes (as for example calcium DTPA, CaNaDTPA-bisamide, calcium-magnifier polychelant or CaNa salts of magnifier polychelants), or, optionally, additions (e.g., 1 to 50 mole percent) of calcium or sodium salts (for.

ANSWER 4 OF 5 ACCESSION NUMBER: TITLE (ENGLISH):

TITLE (FRENCH):

INVENTOR(S):

PATENT ASSIGNEE(S): DOCUMENT TYPE: PATENT INFORMATION:

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1995005842 PCTFULL ED 20020514

METHOD AND DEVICE FOR TREATING GASTROINTESTINAL MUSCLE

DISORDERS AND OTHER SMOOTH MUSCLE DYSFUNCTION PROCEDE ET DISPOSITIF POUR TRAITER LES TROUBLES

MUSCULAIRES GASTRO-INTESTINAUX ET AUTRES DYSFONCTIONNEMENTS DES MUSCLES LISSES

PASRICHA, Pankaj, J.; KALLOO, Anthony, N.

THE JOHNS HOPKINS UNIVERSITY

Patent

NUMBER KIND \_\_\_\_\_\_ WO 9505842 A1 19950302 DESIGNATED STATES

· W:

CA JP AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE

APPLICATION INFO.:

WO 1994-US9759

A 19940823

PRIORITY INFO.:

US 1993-112,088

19930826 -

DETD Figs. 3A and B show the effect of intrasphincteric injection of BoTx on LES response to cholecystokinin octapeptide (CCK)

response of the LES to the IV administration of edrophonium (Tensilon; ICN Pharmaceuticals Inc., Costa Mesa, CA) and cholecystokinin octapeptide (CCK-8) (Kinevac; ER Squibb amp; Sons, Princeton, NJ) in three

additional piglets was also measured. LES pressures, measured by a DENTSLEEVE, were recorded in response to IV edrophonium (5 mg). After a SUBSTITUTE SHEET (RULE 26)

washout period of 10~minutes, CCK (5 µg IV) was then administered.

Subsequently,  $\operatorname{BoTx}$  was injected into the LES, as described above, and the

experiment was. .

Intrasphincteric BoTx also altered the response of the LES to  $\ensuremath{\mathsf{CCK}}$ 

(Figure 3). In untreated piglets, CCK did not cause any significant change in

LES pressure. However, after intrasphincteric BoTx injection, a significant

increase in LES pressure was seen in response to CCK. It should be noted that

despite what was felt to be an adequate washout period (10 minutes) in between

injections, basal. .

retention studies

After an overnight fast, patients were asked to ingest a corn-flake meal with milk containing 0.531 mci 99 aiTc DTPA. Subsequently, serial dynamic

images were obtained with the subject sitting erect in front of a gamma camera.

Retention was expressed. .

L38 ANSWER 5 OF 5

PCTFULL COPYRIGHT 2006 Univentio on STN

ACCESSION NUMBER:

1993006868 PCTFULL ED 20020513

TITLE (ENGLISH):

DENDRIMERIC POLYCHELANTS
POLYCHELATEURS DENDRIMERES

TITLE (FRENCH):
INVENTOR(S):

WATSON, Alan, D.

PATENT ASSIGNEE(S):

COCKBAIN, Jilian, Roderick, Michaelson;

NYCOMED SALUTAR, INC.;

WATSON, Alan, D.

LANGUAGE OF PUBL.:

English

DOCUMENT TYPE:

Patent

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ABEN . . . chelates which are useful in diagnostic imaging

and in radiotherapy and which comprise a plurality of macrocyclic chelant moieties, e.g. DOTA

residues, conjugated to an up to fifth generation dendrimer backbone

molecule, e.g. a starburst
dendrimer. To produce a site-specific polychelate,. . .
. . utilises dans l'imagerie diagnostique et en
radiotherapie. Ils comportent une pluralite de fractions de chelateurs

macrocycliques, par exemple des restes DOTA, conjugues a une molecule de squelette dendrimere dont la generation va jusqu'a la cinquieme, par exemple un dendrimere en etoile.. . .

DETD . . . paramagnetic metal ion chelates of bifunctional chelants for use as MRI contrast agents,

Thus, Krejcarek et al (supra) disclosed how polyaminopolycarboxylic acid (PAPCA) chelants, specifically DTPA (diethylepetriaminepentaacetic acid) could be conjugated to a protein, such as human serum albumin (HSA), by reaction of the triethylamine salt of the PAPCA. . .

152:571 (1988))e

Unger et al, in Investigative Radiology 20:693 (1985) analyzed tumor enhancement for magnetic resonance imaging using an anti-CEA monoclonal antibody conjugated with Gd-DTPA\* They found no tumor enhancement when 4 Gd atoms were bound per antibody molecule, and predicted that a far greater ratio of. . .

Thus Hnatowich et al, (supra) used the cyclic anhydride of the chelant DTPA to attach it to a protein, This, is a relatively simple one-step synthesis procedure which as a result has been used by. . .

has

ABFR .

thus been used to produce bifunctional polychelants in which the chelant moieties are residues of open chain PAPCAs,, such as EDTA and DTPA,, and in which the backbone molecule is a polyamine such as polylysine or polyethyleneimine. Thus for example Manabe et al, in Biochemica. et Biophysica Acta 883: 460-467 (1986) reported attaching up to 105 DTPA residues onto a poly-L-lysine backbone using the cyclic anhydride method and also attaching polylysine-polyDTPA polychelants onto monoclonal antibody (anti-HLA IgGj) using a 2-pyridyl disulphide linker achieving a substitution of up to about 42,5 chelants (DTPA residues) per site-specific macromolecule. Torchlin et al. in Hybridoma 6:229-240 (1987) also reported attaching DTPA and EDTA to polyethyleneimine and polylysine backbones which were then attached to a myosin-specific monoclonal antibody, or its Fab fragment, to produce bifunctional polychelants.

diagnosis and therapy, due in part to their unique localization in the body, The monomeric chelates presently used for MRI contrast enhancement (e.g., Gd(DTPA)2-,, Gd(DOTA)'-) have in vivo applications related to their specific, rapid biodistribution, localizing these chelates in the extravascularl extracellular spaces of the body. The size. . .

Exemplary polyazacycloalkanepolycarboxylates include 1,4,7,10-tetraazacyclododecanetetraacetic acid (DOTA), 1,4,7,10-tetraazacyclododecane-1,4,7-triacetic acid (DO3A), I-oxa-4,7,10-triazacyclododecanetriacetic

acid (DOXA), 1.4,7-triazacyclononanetriacetic acid (NOTA) and 1.4,8,11-tetraazacyclotetradecanetetraacetic acid (TETA), Additionally, the novel - tetraazacycloalkanepolycarboxylates, DOTA-N(2-aminoethyl)amide and DOTA-N(4-aminophenethyl)amide are also contemplated.

The preparation of, the tetraazacycloalkanepolycarboxylate ligands is well known. Synthesis of DOTA is described in U.S. Patent No. 4,647,447 (Gries et al.), U.S, Patent No, 4,639,365 (Sherry) and by Desreux et al, in Inorg. Chem, .19:1319 (1980). Additionally, DOTA is available commercially from Parrish Chemical Co,, Orem, UT, USA. Preparation of DO3A is described in EP-A-292689 (Squibb). Desreux, Inorq. Chem,, 19:1319. . . et al, Inorg, Chem, 26:3458 (1987) and Meares et al, Acc, Chem, Res,, 17:202 (1984) describe the properties and chemistry of the macrocyclic ligands DOTA, NOTA, TETA and their backbone-derivatized analogues, including the preparation of NOTA and TETA, U.S. Patent No. 4,678,667 (Meares et al,) teaches the preparation of a number of macrocyclic, side chainderivatized ligands including DOTA and TETA, Derivatization of DOTA to form DOTA -N(2-aminoethyl)amide and DOTA-N(4-aminophenethyl)amide is described in detail hereinafter in Examples 2 and 3, respectively. The above cited references and all other references mentioned herein are hereby.

acids, oligopeptides (e.g. hexapeptides), molecular recognition units (MRU's), single chain antibodies (SCA's), proteins, Fab fragments, and antibodies. Examples of site-directed molecules include polysaccharides (e,g, CCK and hexapeptides), proteins (such as lectins, asialofetuin, polyclonal IgG, blood clotting proteins (e.g. hirudin), lipoproteins and glycoproteins), hormones, growth factors, and clotting factors (such. . .

## molecule

in general, known methods can be used to join the macrocyclic chelants to backbone molecules. While for preferred macrocyclic chelants, such as DOTA, the conventional mixed anhydride and cyclic anhydride conjugation techniques are ineffective, it has been found that modifying the mixed anhydride procedure by reacting a. . .

For macrocycles with a pendant carboxylate, including but not limited to DOTA, TETA, TRITA (1.4,7,10-tetraazacyclotridecanetetraacetic acid) and NOTA, one of the carboxylates can form an entity which can react with a primary amine group of. . .

## linked to the

backbone polymer through a non-coordinating primary amine group. Macrocyclic chelants having a non-coordinating primary amine group include primary amine side-chain-derivatized DOTA macrocycles, primary aminederivatized DO3A. and primary amine-derivatized hexaaza and octaaza. macrocycles and macrobicycles (the HAMsr sepulchrates and sarcophagines) as well as the. . .

Metal incorporation into DOTA derived and related

macrocylic chelant moieties will normally be a slow process, as described in the references cited below, Specific examples of the. . .

Ned,, 3:808 (1986) and WO-A-87/06229 describe incorporation of Gd(III) into DOTA, A method of preparing Bi and Pb complexes of DOTA is described by Kumar et alf J. Chem, Soc, Chem, Commun., 3:145 (1989) o The above references are incorporated herein by reference in their. . .

reduction of 99mTc

with Sn in the presence of a weakly coordinating ligand such as glucoheptonate prior to complexation with chelants such as DOTA, These methods are well known in the radiopharmaceutical art. OCu utilizes tetraamine chela]tes such as tet A or tet B (see Bhardaredj. . .

for example, physiologically biocompatible buffers (as for example, tromethamine hydrochloride), additions (e.g., 0,01 to 10 mole percent) of chelants (such as, for example, DTPA, DTPA

bisamide or non-complexed magnifier polychelant) or calcium chelate complexes (as for example calcium DTPA, CaNaDTPA-bisamide, calcium-magn-ifier polychelant or CaNa salts of magnifier polychelants),, or, optionally, additions (e.g., I to 50 mole percent) of calcium or sodium salts (for. . .

#### EXAMPLE I

Preparation of DOTA Carboxycarbonic Anhydride DOTA(0\*808 g-I 2,0 mmol) was suspended in 5.0 ml of anhydrous acetonitrile, Tetramethylguanidine (1e00 mli, 8.0 mmol) was added and the mixture stirred under an atmosphere of nitrogen for about 5 minutes at ambient temperature until the DOTA was dissolved, The resulting solution was cooled to -250C under an atmosphere of nitrogen and stirred while adding 0,260 ml (2,0 mmol).

The resulting slurry was stirred for I hour at -25 C4 EXAMPLE 2, Preparation of DOTA-N(2-aminoethV1)amide To the cold slurry from Example 1 was added a solution of mono-BOC-ethylenediamine (0,320g, 2mmol) in 2 ml acetonitrile and the mixture stirred. . . afforded 0.35g of a crystalline glass. IH NMR demonstrated the expected product, as well as some residual acetate (from chromatography), EXAMPLE 3 Preparation of DOTA-N(4-aminoDhenethvl)amide To the cold slurry from Example 1 is added a solution of 4-nitrophenethylamine (0,332g, 2mmol) in 4.0 ml acetonitrile, The mixture is stirred. . . and pH adjusted to 1015 with NaOH to form a mixture which is extracted with ethyl acetate to remove unreacted amine, The product, DOTA-N-(41-nitrophenethyl)amide, is isolated by ion . exchange chromatography on DOWEX AGI-XS resin.

ceases to drop, The product is isolated by filtering off catalyst and evaporating the filtrate to dryness, EXAMPLE 4
Activation of Amino Group of DOTA-N(2-aminoethyl)amide